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Full Name of Author — Nom complet de l'auteur

HEATHER CLARE BAIN

Date of Birth — Date de naissance

14th SEPT, 1954

Country of Birth — Lieu de naissance

NEW ZEALAND

Permanent Address — Résidence fixe

9821 - 90th AVE, EDMONTON, ALBERTA, CANADA. T6E 2T2

Title of Thesis — Titre de la thèse

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DR. F. BOERSMA

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Father Absent and Father Present Children's Achievement: An Ecological Approach.

by

Heather Clare Bain

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

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SPRING, 1980

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Father Absent and Father Present Children's Achievement: An Ecological Approach submitted by Heather Clare Bain in partial fulfilment of the requirements for the degree of Master of Education in Educational Psychology.

Robert H. Short
.....

F J Bauman
.....

Norman K. Kuiper
.....
External Examiner

DATE 12th December 1979
.....

"Mommy, if the doctor brings the baby in his bag, and if Santa Clause brings us toys; if God will punish me when I'm bad; and if money grows on trees; why do we need Daddy?"

(Reported by psychologist Dee Appley in Segal & Yahraes, 1978, p. 105).

ABSTRACT

The present research compared the achievement and academic locus of control of father-absent (FA) and father-present (FP) children. In addition, teachers' perceptions of the children's achievement-related classroom behaviours and mothers' personal anxieties and their expectations of academic aspirations, scholastic abilities and personal-social behaviours for these children, were investigated.

The sample comprised 28 FA and 28 FP Grade 3 subjects, there being 10 females and 18 males in each group. Subjects were chosen from a much larger body of children who were participating in a study investigating the affective characteristics of learning disabled and normally achieving children. Inclusion in the FA group necessitated absence of the father from the home for two consecutive years prior to data collection. In addition, no male adult was resident in the home at the time of data collection. Father-present subjects were drawn randomly from the larger group of children and represented families in which the father was not absent from home, on the average, for more than one twenty-four hour period a week.

The Wide Range Achievement Test was used by the current study to measure attainment levels. Academic locus of control was investigated via the Internal Attribution Responsibility Scale and teacher expectations of achievement-related classroom behaviours, with the Pupil Rating Scale. The maternal data was collected through a structured interview.

The findings for achievement revealed that FA children performed significantly less well than FP children in reading but not spelling and arithmetic. FA boys consistently portrayed poorer attainment levels

than FA girls, the girls' achievement being more akin to that of the FP girls. There was no significant achievement differences for time of absence. Father absent children were significantly more externally controlled than FP children for success, but not failure outcomes, for which the two groups of subjects portrayed similar orientations. In addition, teachers expected FA children to exhibit fewer achievement-related classroom behaviours than FP children. They did not perceive FA boys and girls to differ in this respect although they did see children who were separated before five years but not those separated after five years to show fewer of those behaviours important for learning success than FP children. Single mothers were significantly more lonely and more concerned about financial matters than mothers with the support of a husband. The former compared to the latter perceived their children as holding lower achievement aspirations, as being less able in reading but not other academic abilities and as showing less personal-social adjustment.

The results were pulled together and discussed within a framework of school learning which hypothesizes that achievement is the result of cognitive and affective variables which are in turn influenced by the home and school environments. The reciprocity of this process was recognized. Thus the ecological components of father-absence were stressed, thereby highlighting the single-parent child's existing rather than absent interactions.

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CHAPTER 1

STATEMENT OF THE PROBLEM

Over half a million children in Canada today are growing up in single parent homes. Almost half a million of these children are growing up without a father. The 1976 Canada Census indicated that approximately 10% of the families in Canada were single parent families, and of this 10%, 83% were headed by the female parent and 17% by the male parent. In the five years from 1971 to 1976 there was a 17.1% increase in the number of one parent families, viz., a 5.4% decrease for those headed by the male parent and a 23.1% increase for those headed by a female parent.

Alberta's statistics closely approximate those of the national pattern. Just over 9% of all the provinces' families are single parent families, 84% of these comprising a female parent and 16% a male parent. The five year period from 1971 to 1976 saw a 20.8% increase in the number of one parent families in Alberta. Male headed families increased by 1.5% while the frequency of female headed families underwent a 25.4% increase.

The one parent family unit represents a significant and rapidly growing minority child care situation within the Canadian context. This is especially so for female headed father absent families. A large body of research considers the effects of father absence on children's cognitive development. Yet despite the number of studies conducted, few clear or consistent trends have emerged, largely as a result of definitional problems. Until recently, the basic assumption underlying the literature has been that the absence of the father is

the determining variable in differences reported between children from father absent (FA) and father present (FP) families. Consequently, father presence-father absence has been conceptualized as a dichotomous and unidimensional variable, shorn of its contextual features (Shinn, 1978).

It has recently been recognized, however, that the phenomenon is in reality continuous and multidimensional and that it cannot be isolated from its social and economic context (e.g. Herzog & Sudia, 1973; Radin, 1976; Shinn, 1978). The quantity and quality of father presence-absence, the permanence of, and reasons for father absence, the presence of a father-substitute, the age of the child at the time of separation, the child's sex, the sibling distribution, socio-economic status and race of the family have all been found to moderate the effects of father absence, while the perspective of the one parent family as a functioning entity within an economic and social context reveals financial difficulties and a lack of social support for the single parent unit. Consequently, writers such as Herzog and Sudia have called for a focus on existing rather than absent interactions in FA research.

In the present study father absence was conceived as a continuous, multidimensional and contextual variable. The effects of father absence on school achievement were examined within a model of school learning that enabled the exploration of several aspects of the FA child's achievement related interactions. The model argues that school achievement is related to a child's cognitive and affective characteristics, which are in turn influenced by the home and school environments. Bloom (1976) identifies the home and the school as the two environments most influential in shaping those cognitive and affective characteristics

of the child that are fundamental to success in school learning.

In light of this model the study to be reported compared the school achievement of FA (for reasons of divorce or separation) and FP third grade subjects. Previous research in the area suggests that children whose fathers are absent for reasons of divorce, desertion or separation perform less well than children from two parent families (Shinn, 1978). It also suggests that father absence for the above reasons is more detrimental when it occurs in the first five years of life, than later; and that it affects the achievement of boys more than that of girls (Radin, 1976). The current study, therefore, explored the differential effects of sex and time of absence on the FA child's school achievement.

Bloom asserts that school achievement is the outcome of a pupil's cognitive and affective characteristics. The current study controlled for the subjects' cognitive characteristics (in terms of WISC-R scores) and explored one aspect of their affective characteristics, academic locus of control. Academic locus of control is one of the more fruitful affective constructs to have been examined in relation to school achievement. Research consistently reveals a relationship between internal orientation and learning success on the one hand, and external orientation and achievement failure, on the other (Lefcourt, 1976). Furthermore, there appears to be a relationship between low SES and low internal orientation (Nowicki & Barnes, 1973). In light of the fact that children who are FA for reasons of divorce or separation tend to achieve less well than FP children, and are more likely to experience low SES environments, it was argued that a comparison of FA and FP children's academic locus of control would be a valid undertaking for the

current study.

The school environment was investigated in light of teachers' perceptions of students. The expectancy literature reveals that there is a relationship between teacher perceptions of pupils' abilities and pupils' achievement - that the latter is influenced by the former while the former in turn is affected by the latter (Brophy & Good, 1974). When the literature pertaining to teacher expectancy is considered in light of the lower achievement of FA subjects, it appears that teachers are likely to perceive FA and FP children differently. The current study explored whether or not this is so.

Many researchers (Bloom, 1976) have identified the home environment as crucial to success in school learning. The FA literature is beginning to isolate some aspects of the single parent constellation that differ from that of the two parent family. For example, FA mothers tend to be more concerned than FP mothers about their child care and household maintenance responsibilities. Socially they tend to feel more isolated. Also they are more likely than FP mothers to perceive their children as having lower educational aspirations and as manifesting more personal-social behaviour problems (e.g., Ferri, 1976). In light of the existing FA literature, the study to be reported examined the consequences of the economic and social context for the husbandless mother. Maternal perceptions of children's scholastic aspirations and personal-social behaviours were compared for FA and FP samples. Moreover, the study also reported maternal perceptions of children's school abilities. Although FA researchers have not as yet ventured into this area, evidence suggests a reciprocal relationship between maternal perceptions of ability and school achievement (Chapman

& Boersma, 1979). In light of the FA children's lower achievement, an examination of maternal perceptions of ability was considered appropriate for the current study.

In short, the study to be reported compared 28 FA (for reasons of divorce or separation) and 28 FP third grade children on measures of school achievement. Sample definition occured within a conceptualization of father presence-absence as a continuous, multidimensional and contextual phenomenon. In light of a model of school learning which argues that school achievement is related to a child's cognitive and affective characteristics, which are in turn influenced by the home and school environments, the study controlled a major component of the subjects' cognitive characteristics and explored one aspect of their affect, academic locus of control. It investigated the school environment in terms of teacher perceptions of children's classroom behaviour patterns, and the home environment in light of maternal anxieties and perceptions of children's scholastic aspirations and abilities, and personal-social behaviour.

CHAPTER II

REVIEW OF THE LITERATURE

In line with the concerns of the present study as outlined in Chapter I, the review of the literature is structured in the following manner. Firstly, those variables that need to be considered in an adequate definition of the father absent (FA) and father present (FP) family are presented and discussed. Then the model of school learning which served as the framework for the present study, is introduced. Briefly, the model argues that school achievement is related to a child's cognitive and affective characteristics, which are in turn influenced by the home and school environments. The present study examined four specific aspects of the model's different dimensions in the light of father absence. The literature pertaining to each of these aspects, viz., school achievement, academic locus of control, teacher perceptions of the subjects, and mother's anxieties and perceptions of their children, is introduced in turn.

Definition of FA and FP Samples

Research concerning the female headed one parent family has traditionally been conducted within the framework of FA compared to FP or broken as opposed to intact homes. Until recently, the basic assumption underlying the literature has been that the absence of the father is the determining variable in differences reported between the two family situations. In line with this, researchers have tended to conceptualize their studies within the psychoanalytical or social learning positions. Research has dealt primarily with the sex role and cognitive development of males (Biller, 1970).

Focus on the absent father in one parent families has had a number of consequences for research. Until very recently, father absence-father presence has largely been treated as a dichotomous, unidimensional variable, shorn of its contextual features. Recent writers (Herzog & Sudia, 1973; Radin, 1976; Shinn, 1978) suggest that, in fact, the phenomenon is continuous and multidimensional, and cannot be isolated from the family as an interacting unit set within a wider social milieu.

This part of the literature review is concerned with isolating the variables that need to be considered in an adequate definition of the FA and FP family. The discussion is organized around the continuous, multidimensional and contextual aspects of father absence.

Continuous Aspects of Definition. The notion of father presence-father absence as a dichotomous variable has recently been challenged by a number of researchers (Herzog & Sudia, 1973; Radin, 1976; Shinn, 1978) who argue that a continuous conceptualization more closely approximates the reality of the situation. In any family, father and mother presence-absence are continuous variables with both a quantitative and qualitative dimension. Figure 1 portrays this notion in diagrammatical form.

Figure 1 indicates that any family may in fact be described in terms of mother and father presence-absence. This is true for both quantitative and qualitative interaction. Such a conceptualization reveals that there are many possible FA and FP situations.

Father absent research rarely considers any of the dimensions of this conceptualization. It is just beginning to explore the quantity of father-child interaction for FA and FP samples. Every

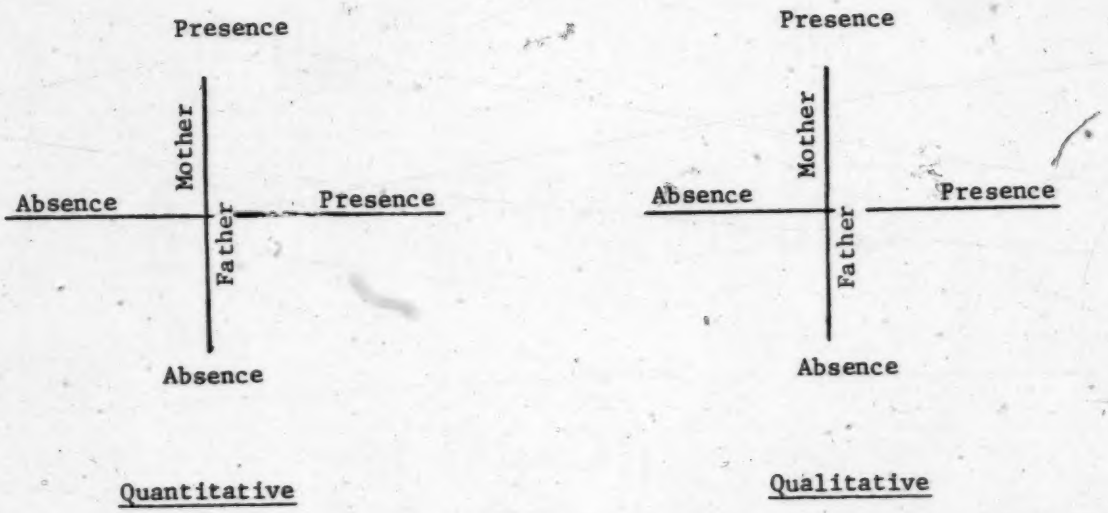

Figure 1. Diagrammatical conceptualization of parental presence-absence.

child experiences absence of the father to some extent. Although absence due to death entails a complete loss of contact with the father, this is not necessarily so for divorce, desertion, separation or not being married. In these cases, there may be support payments. There may also be regular or occasional visits from the father. Moreover, some fathers in two parent families are rarely at home because of work or other demands; they may be employed out of town or in shift work, for example. It is quite conceivable that there is an overlap in the amount of time children spend with their fathers in the extreme examples of the FA and FP situations.

Herzog and Sudia (1973) note that the instances of researchers to have checked on the presence of "commonlaw" fathers and other male adults living in FA homes, are extremely rare. Furthermore, a review of the literature revealed no study had measured the quantity of contact between FA subjects and their absent fathers; nor had any study measured FA or FP subjects' contact with other significant males in their environments.

The quantitative aspect of sample definition has also been clouded by the step parent variable. Herzog and Sudia note that among the studies included in their review of the literature over half defined the two parent home to mean that both biological parents were present. About one in four included step parents in the two parent group while the remainder did not specify. When comparison groups are conceived of as broken and intact families, step parents might also be included in the broken home group (e.g., Kelly, 1970).

Research indicates that the quantity of father presence-absence is important in moderating dependent variable outcomes. Blanchard and

Biller (1971) report one of the few studies to have considered the phenomenon as a continuum rather than as a dichotomy. They divided 44 white, third grade boys equally among four groups a) FA before five years, b) FA after five years (father absence was due primarily to divorce and separation), c) FP, low availability (not specifically defined), and d) FP, high availability (average of more than two hours daily interaction with their children). The groups were matched for age, IQ, SES (working to lower middle class) and the presence or absence of male siblings. The dependent variables were the Stanford Achievement Test and Grade Point Averages. Blanchard and Biller's results indicated that the FP high availability group performed consistently above the other three groups. The FP low availability group were second highest, the FA after five years group third highest and the FA before five years group had the lowest scores.

Studies that compare children brought up in families without a father, in families with a step father and in families with their biological father support the notion that the quantity of father presence-absence is important in moderating dependent variable outcomes. Santrock (1972) compared four groups of third grade subjects on the Stanford Achievement Test; in the first group subjects were living with a step father, in the second, they were living with both their biological parents, in the third they were FA because of death, and in the fourth they were FA because of divorce, desertion or separation. There were no significant differences between the groups on SES ratings, determined by the occupation of the head of the family. All groups were typically lower class. Although his results were not statistically significant, a trend was found for the stepfather group to perform more

highly on the achievement measure than the two FA groups, but less well than the FP group.

Other researchers have found similar trends. For example, Solomon, Hirsch, Scheinfeld and Jackson (1972) reported that for a sample of black ghetto fifth graders, the step father group performed between the FA and FP groups on school grade averages and the Californian Achievement Test, although again the differences did not reach statistical significance. Statistically significant differences were observed by Chapman (1977), on the Scholastic Aptitude Test, between FA and step father groups, and step father and FP groups of white college students, with the latter group in each comparison receiving the higher scores.

While it is apparent that the FA literature has begun to explore the quantitative dimension of father presence-absence for both FA and FP samples, no study was identified that dealt with the quantity of maternal-child contact in one or two parent samples. Furthermore, although quantity of father presence is obviously an important variable, it is generally agreed that quality is the more crucial factor in parental-child interactions (e.g., Lamb, 1976). Although it would be an extremely difficult task, no FA study has attempted to assess the qualitative dimension of paternal or maternal family interactions. One can only speculate, on the one hand, about the effects of infrequent but high quality parental-child interaction in FA samples, and on the other hand, the phenomenon of psychological parental absence -- the present but ineffective parent -- in FP samples.

To sum up, this section of the literature review argued that in any family situation, father and mother presence-absence are continuous

variables with both a qualitative and quantitative dimension. Although such a conceptualization is necessary for adequate sample definition in FA research, but a handful of studies have identified or examined the quantity of father-child interaction in FA and FP samples. No study has considered the quantity of mother-child interaction or the paternal-maternal qualitative dimension of this conceptualization.

Multidimensional Aspects of Definition. Although there is no shortage of studies on father absence, outcomes are frequently conflicting and difficult to interpret because of undefined and uncontrolled variables (e.g., Shinn, 1978). This may be partly explained by the fact that father absence has been conceived of as a unidimensional variable, and studies rarely control for the different aspects of the phenomenon (Herzog & Sudia, 1973; Marino & McGowan, 1976; Shinn, 1978). Those aspects that research has isolated as being of importance in influencing dependent variable outcomes are the permanence of and reasons for father absence, the sex of the child, the sibling distribution and race of the family. Each of these variables are now discussed in turn.

A basic distinction that must be considered in any definition of one parent families, is whether or not the absence of the second parent is temporary or continuing. Studies of temporary father absence (e.g. Ancona, Cesa-Bianchi & Boquet, 1963; Lynn & Sawrey, 1959; Stolz et. al., 1954; Tiller, 1958) typically deal with absence for reasons of war or employment (e.g., sailors) that is, a socially accepted and/or encouraged absence from which the father is expected to return, and during which the family rarely experiences financial hardship. The more methodologically sound of these studies (e.g., Stolz et. al., 1954) have

concluded that the major problems surrounding temporary father absence arise with the return of the father rather than with his absence per se.

Continuing father absence is quite a different phenomenon to temporary father absence. Families within this category have typically undergone paternal death, divorce, separation, desertion or the mother has not ever married. Within the continuing father absence situation, the reason for absence has been shown to be an important variable influencing research outcomes. In spite of this, very few researchers have identified, and even fewer have compared, different causes of father absence in their samples (Shinn, 1978). It is generally accepted that the consequences of paternal death, of divorce, desertion or separation, and of being in an unmarried mother situation, are quite different (e.g., Ferri, 1976; Hetherington, 1972; Snatrock, 1974). Ferri has also argued that because desertion has a socially different meaning than divorce and separation, it should be treated as a distinct variable.

Research that has compared different types of FA samples, generally concludes that the effects attendent upon absence for reasons of death are less severe than those accompanying other FA situations. Various reasons have been forwarded in explanation (e.g. Herzog & Sudia, 1973; Marino & McGowan, 1976). If absence of paternal control is considered the crucial variable, then one parent families for reasons of death are seen to be least affected, as death usually occurs later than divorce, desertion or separation. A similar argument is forwarded from the perspective of economic determinism. Families that have experienced death of the father are much less likely to suffer financial hardship than are other one parent situations. It has also been proposed that

the critical factor might be the burden of the remaining parent's roles and responsibilities, and consequently the limited time and energy she has for her children. Again this might be less severe in the case of absence for reasons of death, because of the generally later occurence of the phenomenon.

Modelling and identification theorists point out that the father removed by death is more likely to be perceived favourably by the mother, children and community, than the divorcee, separator, or informal deserter. A closely related variable is that of the social milieu surrounding the socially approved and socially condemned types of father absence, within which the remaining parent and her children have to interact. Society's support and censure for single mothers is currently in a state of flux. It has been suggested that widows receive the most sympathy while unmarried mothers are the focus of greatest hostility (Ferri, 1976). Finally, it is generally recognized that divorce, separation and probably desertion, are commonly preceded by a period of disharmony and friction, and thus the possibility of adverse effects not usually typical of death and unmarried situations.

The sex of the subject appears to interact with the father absence phenomenon. Recent writers in the area (e.g., Radin, 1976; Shinn, 1978) agree that most studies confine their samples to males only, but disagree about the differential effects of father absence for boys and girls. However, there is some evidence from those studies that employ adequate controls, that males are the more affected by father absence, and that, in fact, the effect on females may be negligible (e.g., Pedersen, Rubenstein & Yarrow, 1973; Santrock, 1972).

Sutton-Smith, Rosenberg and Landy (1968) report a study which

indicates that the sex of the child interacts with the family's sibling distribution in moderating father absence effects. They explored the effects of paternal absence in families of different sibling distribution on the American College Entrance Examination (ACEE). Subjects were drawn over a five year period. Results indicated that in the two child family, the greatest effects of father absence on aptitude scores were seen when the child had an opposite sex sibling. There were no significant differences on ACEE scores between FA first born boys with a younger brother and first born girls with a younger sister, and the FP subjects. However, FA first born boys with a younger sister and first born girls with a younger brother, scored significantly lower on the ACEE than the FP subjects. The authors suggest that the possession of a like-sex sibling modifies the effects of father-absence. The validity of Sutton-Smith et. al.'s results cannot be assessed in light of other studies in the area, as none yet have been reported. However, the study is sufficiently sound methodologically to warrant serious consideration.

Race is an additional family variable that the literature suggests influences the effects of father absence. For instance, it is evident that amongst lower class white children, FA subjects perform significantly less well than FP subjects (e.g., Biller, 1971; Santrock, 1972). However, this does not seem to be so for lower class black children. Solomon, Hirsch, Scheinfeld and Stein (1972) investigated school achievement in black, ghetto fifth graders. They concluded that for school grade averages and the California Achievement Test, girls showed higher performance levels than boys, and children from small families achieved more highly than those from large families. However,

no significant differences were reported between FA and FP children. Cortes and Flemming (1968), Collins (1969) and Wasserman (1969) similarly concluded that father absence has an insignificant influence on academic achievement in lower class black children.

In sum, this section of the literature review identified those dimensions of father absence that are important in influencing dependent variable outcomes and thereby require consideration in FA and FP sample definition. The variables were the permanence of, and reasons for father absence, the child's sex and the family's sibling distribution and racial characteristics.

Contextual Aspects of the Definition. Focus on the fathers absence per se as the important variable in the one parent family situation, has had further consequences for research. Researchers have tended to assume that the one parent family equals the two parent family minus the father, and to concentrate on the absence of a particular set of interactions, rather than on the family constellation and the presence of a particular set of different interactions. In short, the notion of father absence has been shorn of its contextual features, not only in the sense of intra-family interactions, but also in the sense of the wider social milieu (Herzog & Sudia, 1973; Radin, 1976; Shinn, 1978). As Herzog and Sudia state:

> There is a need for viewing father's absence in the perspective of the family as a complex organism set within and interacting with a complex, social economic and cultural organism. (p. 207)

Some researchers claim that the problem of income, and

correspondingly, socio-economic status (SES) poses the greatest difficulty in interpreting the FA literature (e.g., Herzog & Sudia, 1973). It is extremely difficult to implement adequate income controls, or ascertain SES, in this type of research. Most attempts are based on the occupation and/or income of the principal breadwinner. In two parent families this is usually the father, but in FA families it is most often the mother. Thus, the utilization of this sort of control is non-comparable for FA and FP samples (Shinn, 1978). One can only speculate as to the manner in which this might affect the results and conclusions of a study.

Some researchers attempt to solve this problem by drawing FA and FP samples from low income housing areas or similarly homogeneously grouped populations (e.g., Wasserman, 1969). Others attempt to control for SES differences by statistically covarying out income, or education (e.g., Burchinal, 1964). However, as current statisticians have commented (e.g., Maguire & Haig, 1976), this procedure also poses difficulties for interpretation. For example, when one statistically "equalizes" SES for one and two parent families, this means in fact that the variables for which comparisons are now being made, have been altered. Moreover one is never really able to know the implications of this alteration. What exactly is a single parent family stripped of its socio-economic aspects? Because of this difficulty it has been suggested that it is preferable to recognize but retain the SES differences. Such an approach more closely approximates the reality of the situation (Meehl, 1970).

Remarkably few one parent family studies have inquired into the consequences of losing a father on the family constellation. Perhaps

the most well documented effect is that of financial hardship (e.g., Ferri & Robinson, 1976). Census Canada (1971) listed the average two parent family employment income at $10,000. The equivalent figure for divorced female family heads was $4,841 (unfortunately more recent figures were unavailable as Census Canada does not collect this information any longer).

A handful of researchers have explored the consequences of reduced income. Ferri (1976) reports that the single mother is likely to experience conflict and anxiety in attempting to distribute her limited time between financial, child care and household maintenance responsibilities. Nutritional and clothing requirements, leisure and social activities are frequently restricted for both parent and child.

The perspective of the one parent family as a functioning unit within an economic and social context has rarely been considered in research. Several writers (e.g., Burgess, 1970; Ferri & Robinson, 1976) suggest that the most difficult problem facing the single parent and her children comes from the attitudes and behaviours of society which tend to offer censure rather than support, rejection rather than acceptance, and which tend to assume that the child cared for by only one parent will necessarily be deprived of conditions essential for adequate development and adjustment. The ambiguities of the one parent family's status in the light of current social conditions, was summed up by Kriesburg (1970) when he stated:

> Many of the difficulties faced by mothers and children in female headed households are not inherent to that family structure. The difficulties in part stem from the expectations

> of others about what is a normal family, from the socially limited alternatives deemed appropriate for women, and the specificity of sex roles. (In Ferri, 1976, p. 16)

Ferri (1976) reports the most comprehensive attempt at exploring the significance of SES on the achievement of children in one and two parent families. Subjects were designated as being from manual or non-manual homes on the basis of the father's occupation. Where the father was absent, his occupation prior to absence was used. Ferri found that for reading and arithmetic achievement at eleven years, children from non-manual homes obtained significantly higher scores than children from manual backgrounds for each of the different family situations. When the reading and arithmetic achievement of children from different family backgrounds but similar social class situations was compared, results indicated that at both the manual and non-manual levels, subjects living with divorced or separated mothers performed significantly less well than widows' children or those in two parent families.

Furthermore, Ferri's data indicated that children from families that did not have to share basic household amenities (e.g., bathrooms) with other families obtained significantly higher reading and arithmetic scores than those from residential situations that necessitated the sharing of certain facilities. There was also a significant relationship between poor reading and arithmetic achievement and frequent changes of school. Overall, Ferri's research suggests that socio-economic variables are important in mediating the effects of father absence. However, SES alone does not account for all the

difference observed in the reading and arithmetic achievement of children from one and two parent families.

In short, this section of the literature review stressed the importance of examining the FA child's existing as opposed to absent interactions. It focused on the economic and social context of the one parent family, and discussed the difficulties of ascertaining and implementing adequate SES controls in this type of research. It reported data which suggested that SES variables account for some but not all of the difference observed between FA and FP children's school achievement.

Summary and Research Implications. To summarize, the first section of the literature reviewed discussed problems associated with the definition of one and two parent samples. In so doing, it focused on father absence as a continuous and multidimensional variable that cannot be considered in isolation from its contextual features.

It was argued that any family may in fact be described in terms of mother and father presence-absence for both quantitative and qualitative interaction. The current state of the FA literature has touched upon the definition of FA and FP samples in terms of the quantity of father-child interaction. However, researchers have not as yet broached the other aspects of this conceptualization.

Those dimensions of father presence-absence that moderate the effects of the phenomenon were discussed next. They were identified as being the permanence of and reasons for father absence, the child's sex and the family's sibling distribution and racial characteristics.

Finally, the one parent family was considered within its economic and social context. The problem of controlling for SES variables was

discussed, and research cited which indicated that social and economic factors account for some, but not all of the difference in achievement scores between children in FA and FP families.

In light of the above literature, the study to be reported defined FA and FP samples within a continuous, multidimensional and contextual framework. Father absent and FP samples were identified in terms of the quantitative, but not the qualitative dimension, the measurement of which was considered to be too extensive for this study. In regard to the quantitative aspect, inclusion in the FA group required that no male adult had been living in the home for a minimum of two years prior to data collection. Father present subjects lived with both biological parents, and the frequency of contact with fathers, mothers and other significant male and female adults was identified for both samples.

In regard to the multidimensional component, the present study dealt with continuing as opposed to temporary father absence for a group of children who were father absent for reasons of divorce or separation. The FA and FP comparison groups were composed of equivalent numbers of males and females and they did not differ in sibling distribution or racial characteristics. Moreover, they performed at similar levels on the WISC-R.

In light of the research that examines the social and economic context of the single parent family, the current study focused not on the absence of a particular set of interactions, but rather on the FA child's existing interactions as they relate to achievement. Differences in economic and social conditions between the FA and FP samples were not statistically "equalized". Rather they were identified

and results interpreted in light of them.

School Learning Model

It has been stated that the present study focuses on existing, rather than absent interactions involving children in one and two parent families, as they relate to school achievement. The specific dimensions explored were isolated in light of the following model of school achievement (see Figure 2). Figure 2 suggests that school achievement is the result of a student's cognitive and affective characteristics which are in turn influenced by the environmental characteristics of the home and the school.

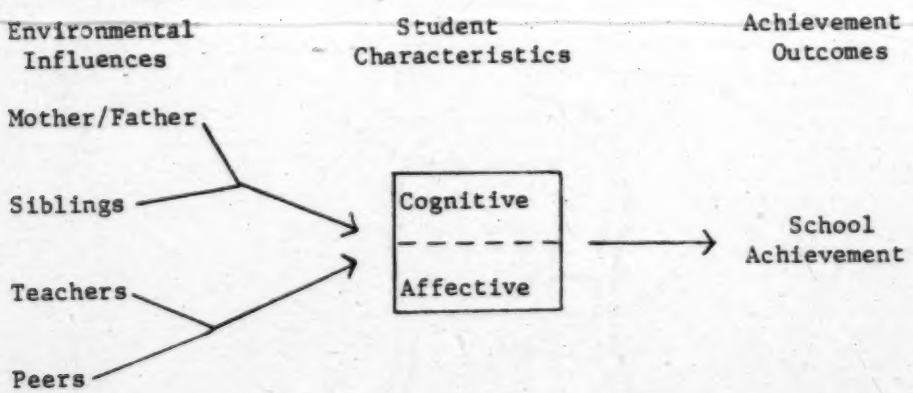

Figure 2. Model of School Achievement

Bloom (1976) identifies the home and the school as the two environments most influential in shaping those cognitive and affective characteristics of the child which are fundamental to success in school learning. He comments that a review of the literature reveals

that a large portion of the variation in school achievement, and especially in verbal ability, can be accounted for by the differences in student's home environments, the major determinant being what adults do in their interactions with children rather than their economic, educational or other status characteristics. Bloom says:

> The home, especially in the age period of about two to ten, develops language, the ability to learn from adults, and some of the qualities of need achievement, work habits and attention to tasks which are basic to the work of schools. (p. 1)

Bloom suggests that the environmental conditions of the school and classroom are also responsible for much of the variation in school achievement -- the quality of instruction, and the judgments attendent upon performance being the most important variables involved. When instruction is provided to a group of learners it will most likely prove effective for some and relatively ineffective for others. As a result, learners are perceived differently by parents, teachers and peers. The judgments made about the learner

> are effective in convincing (him) that he is different from other learners and that he can learn better or that he can learn less well than others of the same age or school level. Having convinced the student and themselves, both the student and significant adults in his life act accordingly. (Bloom, 1976, p. 9)

A considerable body of evidence supports the relationship between

student cognitive and affective characteristics and achievement. Cognitive characteristics refer to a student's knowledge, skills and aptitudes, while affective characteristics comprise interests and attitudes towards self, particular learning tasks and school as a whole.

In terms of cognitive characteristics, intelligence has received a great deal of attention in its relationship to achievement. Bloom suggests that it has been regarded as the universal cognitive entry behaviour for school learning at all levels. He reviews the literature and concludes that general intelligence tests typically correlate about .50 with achievement over a wide variety of courses and subjects.

Affective student characteristics also have an important effect on school achievement. A student's perceptions of his success and failure experiences shapes his perceptions of his own competence. A belief that one is academically competent or incompetent tends to influence such behaviours as effort, faith in the effectiveness of the effort, and strategies adopted when learning difficulties are encountered.

In light of this model of school learning the present study compares children from one and two parent families on measures of school achievement. It controls an important component of the subject's cognitive characteristics - intelligence - and explores one aspect of their affect, academic locus of control. It investigates the children's school backgrounds through teacher perceptions, and home backgrounds through the effects of the social and economic context on the husbandless mother, and the mother's perceptions of her child's scholastic aspirations and abilities, and personal-social adjustment

behaviours. In accord with this, the remainder of the literature review deals with the following four areas:

a) school achievement

b) affective characteristics

c) school environment

d) home environment

School Achievement

The following section reviews research that examines the relationship between father absence and children's school achievement in light of the specific variables to be examined by the present study. Three variables are considered: (1) the moderating effects on the FA child's school achievement of absence for different reasons, (2) the child's age at the onset of absence, and (3) sex effects.

Throughout the following discussion it must be kept in mind that, unless specifically mentioned, none of the studies reported either measured or controlled for intelligence. Herzog and Sudia (1973) note that the relationship between FA and intelligence is far from clear. Some studies find no differences in intelligence between FA and FP comparison groups, others report significantly lower intelligence scores for FA subjects. In view of the well established relationship between achievement and intelligence, there is, therefore, no clear interpretation of the research investigating FA children's school achievement. The present study is unique in that it has WISC-R data for each subject, and is able to compare the school achievement of FA and FP samples that are statistically similar in terms of intelligence.

Reasons for Absence. Few studies have identified let alone

investigated father absence for different reasons. A recent review of the literature (Shinn, 1978) reported only four studies to have explored the relative effects of different types of father absence. The two to have employed adequate controls are discussed below.

Santrock (1972) compared third grade Stanford Achievement Test scores for FP, FA due to death and FA due to divorce, desertion and separation subjects. He found significant differences between the FP and the FA death groups and the FP and FA due to divorce, desertion and separation groups, with the latter group in each comparison performing less well than the former. Research by Ferri (1976) provides partial support for Santrock's findings. Using data from the British National Child Development Study, the author compared the reading and arithmetic attainment of 11 year-old children in FP, FA due to death, FA due to divorce or separation, and unmarried mother groups -- the family situation having been stable since the child was seven years of age. Her results indicated that children living with divorced or separated mothers scored significantly below widows' children and those in two parent families, for attainment in reading and arithmetic. The illegitimate children's scores fell between those of the divorced or separated, and widowed groups.

Santrock's and Ferri's data both suggest that children whose father is absent for reasons of divorce and separation perform less well on standardized measures of achievement than FP children. However, while Santrock found that widows' children performed less well than FP children, Ferri's results revealed similar achievement outcomes for the widowed and FP groups. The difference in the two researchers results appears to be a function of the interaction between the child's

age at the onset of absence and reasons for absence on FA children's school achievement.

The Child's Age at the Onset of Absence. Santrock's (1972) study provides evidence to suggest that, depending on the type of father absence involved, the child's age at the time of absence is important in moderating the effects of the experience. A detailed look at his results reveals that boys who had lost their fathers in the initial two years of their lives had significantly lower third grade scores than FP boys. The girls showed a similar pattern of results. Subjects who had experienced father absence during the first five years of their lives also achieved less highly than the FP subjects. On the other hand, Santrock found a clear although non significant trend for boys and girls whose fathers had died in the first five years of their lives to achieve more highly than those who had experienced death of the father more recently, when they were six to nine years old.

Santrock's results support the suggestion that paternal death may depress achievement temporarily, while the negative effects of divorce, desertion or separation may be longer lasting (e.g., Milner, 1968). They also explain why Santrock but not Ferri found that absence of the father due to death had a detrimental effect on children's school achievement. Santrock's sample included a number of children for whom death of the father was a recent (i.e. in the last three years) occurence. Ferri's sample, on the other hand, comprised children who had experienced their father's death no more recently than four years ago.

Blanchard and Biller's (1971) study provides support for the suggestion that in the cases of divorce, desertion or separation, the

most detrimental achievement effects occur with the onset of father absence before age five. The authors found significant differences for third grade subjects on the Stanford Achievement Test and Grade Point Averages, between the FA before five years and FP groups, with the former performing less well than the latter. There was no statistically significant difference between the FA after five years and FP groups.

It should be noted that research has also been reported which is quite different in outcome to that discussed above. Shinn (1978) in her recent review of the area concludes, however, that it is the studies with less adequate methodological controls that report varied patterns for different FA onset times. Kelly and Zingle (1965) provide an example. They found a significant relationship between sixth grade reading achievement and the subject's year in school at the time of the family breakup. The occurence of absence was most detrimental when it occured in Grades 1 to 3. It had the next greatest effect when the child was in preschool and least effect for Grades 4 to 6. However, the 131 subjects used in the study were in a one-parent family situation for varied reasons, and in fact, 19 of them were motherless.

In short, it appears that for reasons of divorce, desertion or separation, the occurence of father absence in the preschool years has a more detrimental effect on school achievement than absence after age five, and in fact, absence after this time may have no effect on achievement. However, as Shinn (1978) comments, because few studies have broached this area and none have included absences after age 12 in their comparisons, no definitive conclusion about the relationship between onset of father absence and school achievement can as yet be drawn. Hetherington (1966) raises the possibility that length of absence

rather than age of separation may be the important factor. The research discussed indicates that this may indeed be so in the case of divorce, desertion, or separation but for absence due to death, recency of occurence is the critical variable.

The Child's Sex. The FA literature disagrees about the different effects on achievement, for males and females, of losing the father. Shinn (1978) concludes that sex has little moderating effect on the relationship between father absence and cognitive growth. Radin (1976), on the other hand, argues that father absence has a detrimental effect for boys but not for girls. It is true, as Shinn comments, that the major sex difference in research on father absence concerns the population studied. Most studies confine their samples to males only; but a few focus exclusively on females, and a comparison of the sexes on dependent measures is rare.

There are two questions that must be considered in an examination of sex differences in FA children's school achievement. Firstly, are the effects of father absence more detrimental for boys than for girls, and secondly, are the negative effects confined to males only?

For those studies that have compared the performance of FA and FP males and females on achievement scores, there is some suggestion from those that employ adequate controls, that males are the more affected by father absence. For example, Santrock (1972) reports a number of comparisons by sex for his FA and FP groups on third grade achievement measures. He found that for many of the comparisons FA boys scored significantly lower than FA girls. These results are supported by Shelton's (1969) research.

Webb (1970) explored the school achievement of 11th and 12th

grade students and concluded that while students from two parent homes were more successful than those from one parent homes, the differences were significant for boys only. Additional support for the lack of a significantly detrimental effect for girls comes from a study by Pederson, Rubenstein and Yarrow (1973), reported in Radin (1976). They found for black children five to six months of age, that father absence correlated significantly and negatively with boys', but not girls' scores on the Bayley Tests of Infant Development.

In light of the above research there appears to be relatively strong evidence to support the suggestion that father absence has a more detrimental effect on males' than on females' school achievement. Fewer studies specifically approach the question of whether or not the negative effects are confined to males only, but those that do, suggest that this may in fact be the case.

Summary and Research Implications. To summarize, this section of the literature review identified and discussed research which examines the relationship between father absence and children's school achievement. It focused on those variables that are specifically examined by the present study, viz., type of father absence, the child's age when absence occured and his or her sex.

The type of father absence experienced by a child is important in moderating achievement outcomes. Absence due to divorce, desertion or separation seems to have a long lasting and detrimental effect, while the consequences of paternal death appear to be but temporary. The age at which absence occured interacts with the reasons for absence. The evidence suggests that FA for reasons of divorce, desertion or separation, is the most detrimental when it occurs in the first five

years of the child's life, and occurence after this time may in fact have no negative achievement effects. In the case of paternal death there is a relationship between recency of the experience and lowered achievement. Research that examines the sex differences in FA children's school achievement presents relatively strong evidence to support the suggestion that paternal absence has a more detrimental effect on males' than females' achievement, and in fact, the negative effects of the phenomenon may be confined to males only.

In light of the paucity of research to have examined the variables discussed in this section, a major concern of the present study was an investigation of sex and time of absence effects for a group of children whose fathers were absent for reasons of divorce or separation. The FA children were compared with children from two parent families on two measures of achievement, school grades and the Wide Range Achievement Test. Specifically, the study predicted that (a) FA children would perform less well than FP children, (b) father absence would have less severe consequences for males than for females, and (c) the occurence of absence before five years would be more detrimental to achievement than later absence.

Affective Development

The second major concern of the present study is an exploration of student affect as it relates to school learning in FA and FP children with similar cognitive (i.e., WISC-R) characteristics. Numerous writers assert that affective characteristics influence school achievement (Bloom, 1976). One of the most fruitful constructs to have been studied is that of academic locus of control (Lefcourt, 1976).

Academic Locus of Control. The notion of locus of control originated with J. A. Rotter in 1966, and since that time it has received extensive attention from researchers. However, as locus of control appears to be a multi-dimensional construct, with little generalizability over varied motivational situations (Crandall, Katovsky & Crandall, 1965), the present study specifically explores the relationship between family composition and locus of control in academic situations. The concept academic locus of control refers to individually perceived sources of control for school related performances. Internal locus of control is associated with the perception of success or failure outcomes as being a consequence of ones own behaviour and, therefore, under personal control. External locus of control refers to the perception of outcomes, whether successful or otherwise, as having no relation to ones own behaviour, and therefore beyond personal control (Lefcourt, 1976).

The importance of locus of control to school achievement has been demonstrated by many studies (Moursand, 1976). For example, Crandall et. al. (1965) found a significant relationship between internal locus of control and reading, mathematics, language and total scores on the Iowa Test of Basic Skills, for children from Grades 3 to 5. Internal locus of control was measured via the Intellectual Achievement Responsibility Questionnaire (IAR: Crandall, Katkovsky and Crandall, 1965), perhaps the most frequently used instrument in the assessment of this attribute for children.

The results of Crandall and her colleagues have been supported by those of other researchers. McGhee and Crandall (1968) found that for two measures of achievement, course grades and standardized achievement

test scores, students with high scores on the IAR (internal orientation) performed significantly better than did students with low scores on the IAR (external orientation).

Messer (1972) obtained similar results with a group of fourth grade students, while Kifer (1975) reported that there were highly significant differences in the IAR scores for subjects drawn from the top and bottom 20% of students in grade 4, 6 and 8 classes. The highly achieving students were the more internally oriented. Statistically significant differences in IAR scores were not obtained for the grade 2 children. Kifer's results suggest that while the use of the IAR yields evidence of a significant relationship between internal locus of control and achievement for grades 3 and above, the instrument may not be sufficiently sensitive to tap this relationship for younger children, or in fact the relationship may not exist in the same strength at this stage. There is some evidence that internality in successful students increases as a function of age, although unsuccessful students show a more stable level of external orientation (Kifer, 1975; Moursand, 1976).

Thus, research points to a consistent relationship between internal orientation and higher achievement on the one hand, and external orientation and lower achievement on the other. Academic success requires a measure of persistence and effort. Such behaviours are unlikely to be forthcoming from students with an external locus of control who attribute their achievement outcomes more to factors of luck, chance, fate or the whim of powerful others, than to their own efforts. The child with an internal orientation, on the other hand, perceives a relationship between his own effort and persistence, and his academic

successes and failures.

Although the IAR measures locus of control for both success and failure experiences, it is rare for researchers to utilize these subscales in their studies. Chapman and Boersma (1979) are an exception. They compared the scores of poorly and normally achieving children in grades 3 to 6, on the I+ (success outcomes) and I- (failure outcomes) subscales of the IAR. Results indicated significant differences between the two groups on the I+ but not on the I- subscale. The poorly achieving children were less likely than the normally achieving children to attribute responsibility for success to internal factors such as ability or effort. However, the two groups of children were just as likely to perceive failure outcomes as being under the control of internal factors. Chapman (1979) suggests that poorly achieving children are likely to perceive themselves as having little academic ability. Thus successful achievement outcomes are viewed as being unexpected and beyond their control, while failure experiences are seen as being a consequence of lacking the necessary abilities.

The relationship between academic locus of control and achievement in the light of sex differences is far from clear. Crandall and her colleagues (1962) found that the IAR was significantly related to reading and arithmetic achievement for boys but not for girls. Chance (1965) found a similar pattern of correlations among third grade boys for the same dependent variables. However, he also found a significant relationship between the IAR scores and the respective achievement variables for girls. Crandall et. al. and McGhee and Crandall report data that suggests the relationship between locus of control and achievement for males may be more strong for an internal orientation to failure

than to success. No consistent results were obtained for females. In light of the research, writers (e.g., Moursand, 1976) conclude that the relationship between achievement and locus of control tends to show up more strongly and clearly for boys than for girls.

Explanations have been offered for this tendency. For example, Ames (1978) found that for males and females with equivalent performance outcomes, females were more self-effacing and attributed significantly less of their success to personal internal factors such as ability and effort, than did males. Similarly, Nowicki and Walker (1973) point out that the social stereotype of the female is much more "helpless" than that of the male. They suggest that the girl for whom social approval is important, may conceal her internal orientation in order to appear more feminine. Nowicki and Walker's research identified a significant relationship between an internal locus of control and successful school achievement for girls with low social desirability scores. However, no such relationship was obtained for girls with high social desirability scores.

Locus of control has rarely been considered in relation to one parent families. Hetherington (1972) compared FA and FP adolescent girls and their mothers on the Internal-External Control Scale. When results were analyzed for the scale as a whole, no significant differences were found for family composition. However, when the scale was treated not as unidimensional, but as containing two factors, personal and political (Mirels, 1970), Hetherington's results revealed that separated mothers and daughters scored significantly below FP mothers and daughters for an internal orientation on the personal control but not the political factor. Horowitz (1976) reported greater full-

scale external locus of control orientations for FA than FP high school subjects. Hainline and Feig (1978) investigated the control orientations of one and two parent college aged women and found no differences between the two groups on the Internal-External Control Scale for full-scale or subscale scores. The lack of congruency of their results with those of Hetherington and Horowitz might have come about for a number of reasons, e.g., different age of subjects, Hainline and Feig's more homogenous comparison samples and their inclusion in the FA group of women who had experienced paternal separation for reasons of death and divorce.

A review of the literature revealed no study that had compared FA and FP school children on a measure of acadmeic locus of control. However, there is some reason to expect that the construct may differentiate between the children of one and two parent families, especially in the father absence for reasons of divorce or separation situation. Evidence does suggest that children growing up with divorced or separated mothers achieve less well than do those from two parent families and there is a strong relationship between academic locus of control and achievement. Furthermore, one parent families for reasons of divorce or separation usually fall into the lower socio-economic brackets, because of increased financial strain (e.g., Ferri and Robinson, 1976), and there is evidence of a relationship between SES and locus of control (e.g., Crandall et. al., 1965; Nowicki and Barnes, 1973). A childhood in environments that are harshly controlling or unpredictable, where residential instability, crowded living quarters and poverty are the norm, is bound to intensify a sense of personal helplessness (Moursand, 1976). Ferri and Robinson's research indicates

that just such an environment is frequently experienced by families who have undergone parental divorce or separation. As Nowicki and Barnes (1973) put it:

> Children in this situation --- may perceive events as being unpredictable and beyond their control and may as a result feel helpless or powerless to do anything constructive about their condition.(p. 247)

To sum up, the literature provides evidence of a relationship between lower achievement and less internal orientation for success but not failure outcomes. Such a funding may indicate that poorly achieving children are likely to perceive themselves as having little academic ability and therefore see successful achievement outcomes as due to chance and whim factors. Children whose fathers are absent for reasons of divorce or separation tend to achieve less well than FP children. Moreover, they experience socio-economic environments that are frequently uncontrollable and unpredictable. Consequently, the present study predicted that FA children would report less internal orientation for success outcomes than FP children, but that the two groups would be similar in orientation for failure outcomes.

The School Environment

The third aspect of the school learning model to be examined in the present study is that of the school, with the focus being specifically on the teacher, the most important "significant other" in the child's school environment (Braun, 1976). An aspect of student-teacher interactions that has received considerable attention during the last decade is that of teachers' impressions, perceptions or

expectations of pupils, and their influence on school achievement. Researchers (e.g., Bloom, 1976; Brophy & Good, 1974; Solomon & Kendall, 1977) argue that the judgments made by teachers, as a result of a student's performance, represent one of the most influential variables in subsequent learning success.

Teacher Perceptions. Although the research is usually entitled "teacher expectations" most studies actually measure or induce teacher perceptions of pupils abilities, and treat expectations and perceptions as synonomous (Pidgeon, 1976). Whether or not they are in fact one and the same thing, has not been clarified.

Garner and Bing (1973) have postulated that the link between teacher's expectations (A) and different levels of student achievement (D) is mediated by differential teacher behaviour (B) which may in turn result in different pupil behaviours (C). Studies have dealt with some of the links in this chain.

The first evidence of an A-D link was provided by Rosenthal and Jacobson (1968). Despite the extensive criticism that this study has received (e.g., Elashoff & Snow, 1971; Mendels & Flanders, 1973), many other studies report results that support a relationship between teacher expectations and pupil performance (Brophy & Good, 1974). Brophy and Good comment that naturalistic studies, which measure actual expectations and student achievement, tend to support Garner and Bing's A-D link, while those studies that experimentally manipulate or induce teacher perceptions and expectations rarely find a significant relationship between them and student achievement.

Data exist on the relations between A and B, viz., teacher perceptions and teacher behaviours. Luce and Hoge (1978) comment that

there is evidence to suggest that teachers persist longer with high expectation than low expectation students when they fail to answer a question; that they more frequently praise the former for their correct responses, criticize the latter for their incorrect responses, and that generally they tend to interact more frequently and positively with high expectation than low expectation students.

Research has not investigated the (B: teachers behaviours) - (D: pupils school achievement) relationship within the framework proposed by Garner and Bing. The exception is a study by Luce and Hoge in which positive and significant correlations ($r=-.25$ to $r=-.40$) between frequent teacher criticism of student behaviour and work, and low reading and mathematics achievement were obtained.

The relationship between pupil behaviours (C) and pupils' school achievement (D) has been demonstrated by a number of studies. Luce and Hoge report that a review of the research revealed significant and positive relationships between attentiveness, compliance, satisfactory personal-social relationships and achievement. In their own study they obtained significant and positive correlations, ranging from .20 to .40 between reading and mathematics achievement, and pupils' work related and personal-social interactions. In a similar vein, Solomon and Kendall (1977) found highly significant relationships between autonomous intellectual orientation and school achievement ($r=.31$) and responsible, perseverant striving behaivour and learning success ($r=.61$).

While it is generally recognized that teacher perceptions and behaviours are an important factor influencing children's behaviours and achievement, it must be remembered that the latter influence the

former, and that in fact the relationship is one of reciprocity (e.g., Solomon & Kendall). Studies reveal highly significant relationships between teachers' rankings of pupils' abilities, achievement, classroom behaviours and standardized measures of the same. For example, Luce and Hoge (1978) obtained a correlation of .35 between teacher rankings of ability and IQ scores. The correlation between teacher rankings of reading achievement and a standardized measure of the same was .41, while for mathematics achievement it was .29. Consequently it seems that the teacher is in fact an accurate judge of children's achievement, abilities and classroom behaviours. However, once these judgments have been made, they tend to be self perpetuating as the child and those around him/her act in accord with them.

The Pupil Rating Scale (PRS: Myklebust, 1971) was designed to measure pupils' behavioural patterns as they are perceived by the teacher in the classroom. The scale taps five areas of behaviour that have been related to success and failure in school achievement, viz., auditory comprehension, spoken language, spatial orientation, motor co-ordination and personal-social behaviours. Although the PRS was originally designed as a screening device for learning disabled children, it was considered appropriate for use in the present study in light of the fact that it measures a number of behavioural patterns the teacher expectancy literature has isolated as being important, most of which are associated with school achievement, and one of which has received attention from the FA literature.

The PRS taps classroom behavioural patterns that bear a strong relationship to academic success. The first of these is auditory comprehension. Auditory comprehension is important for success in

learning, largely because of its relationship to motivation, and therefore the mediation of its effects through intervening variables such as attention, persistence, and increased frustration tolerance (e.g., Ausubel, Novak & Hanesian, 1978).

The second subscale taps fluency in spoken language. The importance of language in learning is unchallenged. Indeed it has been argued (Pribram, 1971) that learning is language. Certainly fluency in spoken language is especially important in elementary grades, where the classroom learning environment is dominated by the spoken verbal medium. As Cazden (1973) says:

> Language poses multiple problems for education because it is both curriculum content and learning environment, both the subject of knowledge and the medium through which knowledge is acquired. (p. 105)

Diagnostic and remedial educators (e.g., Hammill & Bartel, 1976) frequently stress the need for adequate spatial orientation abilities in school learning success. The third group of behavioural patterns measured by the PRS are those that relate to spatial orientation. Personal and social behaviour is the fourth area tapped by the PRS. It too cannot be isolated from classroom achievement. Ausubel et. al. comment that both teachers' ratings of adjustment and children's scores on standardized personality inventories are moderately and positively correlated with different criteria of school success.

The only area of behaviour tapped by the PRS for which the relationship with academic success has not been clearly established or defined, is that of perceptual-motor coordination. As Hammill and

Bartell comment, the existing evidence is only sufficient to suggest that academic lack of success is sometimes related to, or accompanied by, poor perceptual-motor coordination.

It is rare to find, in the FA literature, a focus on teacher perceptions of children's behavioural patterns. A handful of studies which measure teacher ratings of pupils' personal-social classroom behaviours provide the exception. Cortes and Flemming (1968) compared teacher ratings on the PRS for FA and FP samples of black five and six year old boys. Statistically significant differences were observed, with the FA group obtaining lower ratings than the FP group for overall emotional adjustment, social maturity, tendencies towards depression and aggression, emotional security and irritability, impulsiveness and moodiness.

The outcome of a study by Herzog (1974) supports Cortes and Flemmings' results. For a sample of boys from Barbados, teachers rated those without fathers as being significantly more troublesome in school than those with fathers. The outcome of these two studies may not, however, generalize to white populations.

For those studies using Caucasian subjects, there is little agreement amongst results, probably because important variables are rarely controlled. For example, Atkinson and Ogston (1974) and Kelly and Zingle (1965) report no significant differences between FA and FP groups of children for teacher ratings of behavioural adjustment. However, neither of these studies controlled the reasons for which the father was absent. A third study (Burchinal, 1964), which also did not control for reasons for father absence, did report significant differences between teacher ratings of personal-social adjustment behaviours

for FA and FP subjects. The FA subjects obtained the lower ratings.

In sum, a review of the FA literature reveals that the only area of teacher perceptions to have been considered, is that relating to children's personal-social behaviours. The results of the existing studies are confounded by race and reasons for absence variables. No study compares teacher perceptions of FA and FP boys and girls; nor does any study control for IQ.

In light of the teacher expectancy literature, and the tendency for children whose fathers are absent for reasons of divorce or separation to achieve less well than FP children, the study to be reported predicted that teachers would rate FP children more highly than FA children on the PRS subscales and total scale. Because the scale taps behavioural patterns that are closely related to school achievement, and because the literature indicates that subject characteristics interact with father absence in achievement outcomes, it was further hypothesized that teachers would rate FA girls more highly than FA boys, and that children whose fathers became absent after five years of age would be rated more highly than those who experienced father absence in their preschool years.

The Home Environment

The final aspect of the school learning model to be investigated by the present study is that of the home environment. The importance of the home environment to school achievement was stressed by Coleman (1966) in the report on Equality and Educational Opportunity in the United States, when he wrote:

> Taking all these results together, one implication stands out above all: that schools bring little

> influence to bear upon a child's achievement that is independent of his background and general social contact; and that this very lack of independent effect means that the inequalities imposed on children by their home, neighbourhood and peer environment are carried along to become the inequalities with which they confront adult life at the end of school. (p. 325)

A small number of father absent researchers (e.g., Herzog and Sudia, 1973; Hetherington, Cox and Cox, 1976) are now beginning to stress that the mother in interaction with her children and within a complex social, economic and cultural milieu, plays an important part in minimizing the effects of father absence. The study to be reported investigates the home environment in light of three maternal components that research has indicated either differentiate between FA and FP homes, or influences a child's achievement outcomes, viz., the consequences of the single parent family's social and economic context for the mother, the FA mother's perceptions of her child's scholastic aspirations and abilities, and her perceptions of her child's personal-social adjustment behaviours.

Consequences of the Social and Economic Context for the Husbandless Mother. The absence of a father means that the one parent family is structured quite differently to that of the two parent family. For instance the task structure of the family changes (Glasser & Navarre, 1965). In terms of task structure the remaining parent is now responsible for the financial support, the child care and household

maintenance of her family-tasks that usually require the full time commitment of two parents. Descriptive research (e.g., Ferri, 1976; Ferri and Robinson, 1976) reports that the single parent is likely to experience conflict in attempting to distribute her limited time between her different responsibilities.

> At first sight then, the loss of the father would appear to entail primarily an economic threat and the mother's absence to present first and foremost a problem of child care. However in practical terms, the two are indissolubly linked, and difficulty facing any one parent is the one combining these apparently full time roles of breadwinner and homemaker without an unacceptable reduction of standards in one area or both. (Ferri, 1976, p. 47)

Ferri and Robinson's research reveals that lone parent, and particularly fatherless families, frequently suffer from financial hardship if not actual poverty. A recent study of community attitudes towards lone parents reported that the fathers were expected to go out to work, and mothers to remain at home with their children (McKay, George and Wilding, 1972). Ferri and Robinson found that 90% of their single mothers believed that where children were under school age, the mothers should remain at home. Those mothers that do remain at home fact problems of extreme financial hardship. As a result, nutritional and clothing requirements, leisure and social activities are frequently restricted for both parent and child. On the other hand, mothers who work report anxiety about leaving their children

alone and having little time to spend in interaction with them. Overall, one parent mothers are significantly more concerned than two parent mothers with financial needs, discipline maintenance and their children's school achievement (Lamb, 1976).

The absence of a father also has consequences for a family's affectional structure. Glasser and Navarre (1965) comment that adults must have love and security to maintain emotional stability under the stresses of life and in order to meet the emotional demands made on them by their children. If the needs of the adult are not fulfilled, they may dominate to the point where the requirements of the children are not met either.

Hetherington, Cox and Cox (1976) provide a vivid description of the single parent's world in their analysis of the two year diary records of a group of one parent and two parent mothers. Their results support the notion of greater stress and less support for the single parent. Results indicated that the single mothers frequently found their social life restricted because of the emphasis on couple participation; that they had significantly less contact with adults than their father present counterparts; and that they often commented on their sense of being locked into a child's world. The lone parents emphasized the importance of supportive friends and noted that since separation there had frequently been great dissociation from their married friends. Hetherington and her co-workers also found that intimacy in heterosexual relationships correlated significantly with measures of happiness, self-esteem and competence. In face of lack of support from society and isolation from other adults, the FA mothers further reported that their most effective support

system was a continuing and positive relationship with their ex-husband and his involvement with the children. Ferri and Robinson's (1976) single mother subjects similarly reported feelings of loneliness, social isolation and lack of fit in "a world of twos", dissociation from married friends, and the desire for intimate sexual, emotional and supportive relationships.

To sum up, the FA literature has to date isolated a number of consequences for the husbandless mother, of her social and economic context. It suggests that she experiences conflict in attempting to distribute her limited time between her different responsibilities and consequently tends to be more concerned than the two parent mother with financial, child care and nutritional needs. Furthermore, the greater stress experienced by the single mother is intensified by less available support systems in a social milieu that emphasizes couple participation. Such a situation is likely to have important consequences for the FA child, in the sense that the unfulfilled mother's needs may dominate to the point where the child's needs are not being met either.

Mother's Perceptions of their Children's Scholastic Aspirations and Abilities. It is rare to find the area of maternal perceptions included in studies of the one parent family. However, the perceptions encountered by a child of his or her scholastic aspirations and abilities, in the home as well as the school environment, are important in influencing that child's subsequent achievement (e.g., Bloom, 1976). Bloom argues that although the perceptions may be accurate for that time, once made and acted upon, they soon convince the child and the mother of their unchanging validity. The question of mothers' perceptions of their children's scholastic abilities has not been broached

by the FA literature, and a review of the research revealed but one study to have measured mothers' perceptions of their children's scholastic aspirations. Maternal perceptions of children's scholastic aspirations and abilities is defined as the current awareness or state of knowledge about these attributes.

Research indicates that single and two parent mothers themselves, hold similar aspirations for their children in terms of school grades, but that single mothers are less likely than two parent mothers to hope that their children continue their education beyond the high school level (Ferri, 1976; Kriesburg, 1970). However, in terms of mothers' perceptions of their children's educational aspirations, Ferri's study suggested that FA compared to FP mothers perceived their children as holding lower aspirations for current and post secondary school achievement.

Although the FA literature has not ventured into the area of maternal perceptions of children's scholastic abilities, research indicates that there is evidence of a relationship between children's school achievement and maternal perceptions of ability. For instance, Chapman and Boersma (1978) found that mothers of poorly achieving subjects expected their children to perform significantly less well than mothers of normally achieving Grade 3 to 6 subjects, in future academic tasks (viz., reading, spelling, language, arts, math, social studies and science).

Entwistle and Hayduk (1978) found that parental perceptions of ability were already related to children's report card grades in the first two years of elementary schooling, and that they were modified as a result of the child's performance. Thus, the relationship between

perceptions of ability and achievement appears to be one of reciprocal influence.

Overall, there is some suggestion from the FA literature that single compared to two parent mothers perceive their children as having lower educational aspirations. The question of FA compared to FP mothers' perceptions of their children's ability, has not been investigated. However, in light of the relationship between school achievement and maternal perceptions of ability, and the lower achievement of children who are FA for reasons of divorce and separation, it is argued that an exploration of FA mother's perceptions of their children's ability would be a valid undertaking for the current study.

Maternal Perceptions of Children's Personal-Social Adjustment Behaviors. A handful of FA studies have considered maternal perceptions as they relate to children's personal-social adjustment behaviours. For instance, Ferri (1976) found that divorced and separated mothers perceived their children as exhibiting more behavioural difficulties than did comparison mothers from widowed and two parent families. Compared with children from two parent homes, a greater number of those living with divorced and separated mothers were seen as fearful, tearful, fidgety, restless, likely to fight with other children, and having bad dreams.

Rowntree (1955), on the other hand, found little difference in the reported incidence of behavioural disturbances such as night terrors, thumb sucking, nail biting or eating difficulties when children in FA and FP families were four years of age. The higher incidence of enuresis amongst children from single parent homes, was the only significant difference. However, Rowntree did not control for types of

father absence, and a FA sample that includes subjects who were FA for reasons of death as well as divorce and separation, diminishes the likelihood of significant results. Douglas (1970) reported, for the same group of children, that this eneuresis difference persisted up until the age of fifteen years. The Ferri data, for eleven year old subjects found a significantly higher frequency of enueresis amongst boys but not girls from one parent compared to two parent homes.

Thus, the evidence suggests that there is a tendency for divorced or separated mothers compared to two parent mothers, to perceive their children as having more personal-social behavior problems. But, it is difficult to interpret these findings. While they may reflect real variations in the behaviour patterns of children in different famiy situations, they may also reflect the fact that mothers on their own are likely to be more anxious about their children's behaviour and more ready to perceive problems, than are mothers with the support of a husband. Whatever the case, either situation is bound to have an effect on the childs cognitive and affective development, and hence his or her school achievement.

Summary and Research Implications

The final section of the literature review discussed those aspects of the home environment that are of specific concern to the present study. As researchers are beginning to emphasize that the mother is important in moderating FA effects, three components of the maternal world that have been shown to influence a child's school achievement or to differentiate between FA and FP homes, were explored.

Evidence indicates that the single mother's social and economic

milieu entails considerable stress in the areas of finance, child care and nutrition. Frequently expressed feelings of loneliness and social isolation suggest that the single mother's needs are often unfulfilled, and may in fact dominate to the point where the children's needs are not being met either.

Research investigating mother's perceptions of children's educational aspirations suggests that FA compared to FP mothers perceive their children as holding lower current and post secondary school achievement aspirations. Although maternal perceptions of ability have not been examined in the context of father absence, there is a relationship between maternal perceptions of less ability and children's lower achievement, on the one hand, and between FA for reasons of divorce or separation and poorer school performance, on the other hand. Thus it was argued that it would be a valid undertaking to compare mother's perceptions of their children's school abilities in FA and FP samples.

Finally, the literature dealing with FA mother's perceptions of their children's personal-social adjustment behaviours was discussed. Evidence suggests that divorced or separated mothers in comparison to two parent mothers, tend to perceive their children as having more behaviour problems. Whether or not these perceptions reflect the reality of the situation, they will surely influence children's cognitive and affective characteristics, and hence their school achievement.

In light of the literature to have been discussed above, the present study hypothesized that (a) FA compared to FP mothers would express greater concern in matters of finance, child care and personal contentment, that (b) FA compared to FP mothers would perceive

their children as having lower achievement aspirations in their current school work and as being less academically able, and that (c) FA mothers compared to FP mothers would perceive their children as manifesting more personal-social adjustment problems.

Conclusion

The review of the literature began by isolating those variables that need to be considered in an adequate definition of FA and FP families. In line with the recommendations of recent writers (e.g., Herzog & Sudia, 1973; Radin, 1976; Shinn, 1978), it was argued that father absence is a continuous and multidimensional phenomenon that cannot be isolated from the family as an interacting unit set within a wider social milieu.

For the continuous aspect, it was suggested that FA and FP samples should ideally be defined in terms of the quantity and quality of father-child and mother-child interactions. Those dimensions of father absence that the literature has isolated as being important, were next identified, viz., the permanence of and reasons for father absence, the child's sex, the sibling distribution and race of the family. The perspective of the one parent family as a functioning entity within an economic and social context, revealed financial difficulties and lack of social support for the father absent unit. The problem of SES controls were discussed and it was concluded that it is preferable to recognize but retain differences.

In line with the research discussed above and a conceptualization of father absence-father presence as a continuous, multidimensional and contextual phenomenon, the study to be reported identified the quantity of father-child and mother-child interaction for the FA and

FP samples. Moreover, it controlled those dimensions that research has isolated as affecting dependent variable outcomes. Socio-economic differences were identified and results discussed in light of them.

Recent writers in the area of father absence have called for a focus on existing rather than absent interactions. The present study examined the effects of father absence on school achievement, within a framework of school learning that enabled the writer to explore several aspects of the FA child's achievement related interactions. The model argued that school achievement is related to a child's cognitive and affective characteristics, which are in turn influenced by the home and school environments. In light of the model the present study compared children from one and two parent families on measures of school achievement. It controlled a major component of subjects' cognitive characteristics -- intelligence -- and explored an aspect of their affect, academic locus of control. It investigated the school environment in light of mother anxieties and mothers' perceptions of their children's scholastic aspirations and abilities, and personal-social adjustment behaviours. The literature relating to each of these areas was discussed in turn.

Studies that explore the effects of father absence on school achievement suggest that children whose fathers are absent for reasons of divorce, desertion or separation perform less well than the children of widowed or two parent families. Research further indicates that children who experienced absence due to divorce, desertion or separation, in the first five years of life tend to perform less well than those for whom absence occured later, and that the school achievement of boys is more affected by father absence than is that of girls.

In light of the literature, the first concern of the current study was with the effects of father absence due to divorce or separation on school achievement. Specifically it was hypothesized that 1(a) FA subjects would perform less well than FP subjects, that 1(b) FA males would achieve less well than FA females, and that 1(c) the effects of father absence on achievement would be more detrimental for those who experienced absence in the first five years of their life as opposed to later.

The second major concern of the present study was to compare an aspect of FA and FP children's affect, academic locus of control. The literature pertaining to academic locus of control reveals a consistent relationship between internal orientation and achievement success, on the one hand, and external orientation and achievement failure on the other. Significant differences in orientation between poorly and normally achieving students are more likely to be found for success than failure outcomes. Furthermore, evidence suggests a relationship between low SES and low internal orientation.

When the outcomes of the locus of control literature are considered in light of the lower achievement of FA subjects and the greater possibility that they experience environments classified as low SES, it seems likely that 2(a) FA children would report a less internal control orientation than FP children for success experiences, but 2(b) that the two groups would be similar in orientation for failure outcomes.

The third dimension of the school learning model to be examined by the present study was that of the school, and specifically teacher perceptions. Research indicates that teacher perceptions play an

important part in influencing pupils' behaviours and achievement, and that the latter also influences the former. Teachers appear to be accurate judges of pupils' achievement, abilities and classroom behaviours.

Overall, the relationship between teachers' perceptions and students' achievement considered in combination with the research that examines the effect of father absence on school achievement, suggests that 3(a) teachers will rate FA students' classroom behaviour patterns less well than those of FP students; that 3(b) FA girls are likely to be more highly rated than FA boys, and that 3(c) subjects who experienced father absence in their preschool years may be rated less highly than those for whom absence occured after five years of age.

The final area of concern for the present study is that of the home environment and specifically the mothers' economic, child care and personal contentment concerns and her perceptions of her child's academic aspirations and abilities and personal-social behaviours. Research indicates that FA compared to FP mothers perceive their children as having lower educational aspirations. Research that examines the social and economic milieu of the single family constellation reveals that lone parents frequently suffer severe financial hardship and consequently conflict in attempting to fulfill their financial support and child care responsibilities. In line with previous findings the study to be reported predicted that 4(a) FA mothers would be more concerned than FP mothers about matters of finance, child care and personal fulfillment.

The home environment was also investigated in terms of maternal

perceptions of children's scholastic aspirations and abilities. Although the FA literature has not yet broached the area, the relationship between maternal perceptions of ability and achievement appears to be one of reciprocal influence. Thus when the lower achievement of FA children is considered, it seems likely that 4(b) FA mothers compared to FP mothers would perceive their children as being less academically able. In line with previous research, it was also predicted that the FA mothers would perceive their children as having the lower educational aspirations.

There has been some consideration in the FA literature of maternal perceptions of children's personal-social behaviours. Evidence indicates that there is a tendency for divorced or separated mothers to perceive their children as being less well adjusted than do mothers from two parent families their children. Therefore, the final hypothesis to be examined by the current study was that 4(c) FA mothers in comparison to FP mothers would perceive their children as exhibiting more personal-social adjustment problems.

CHAPTER III

METHOD AND DESIGN

Subjects

Fifty six Grade 3 children participated in the study, 28 each in the father present (FP) and father absent (FA) groups. Each of the two comparison groups comprised 18 boys and 10 girls. The teachers (n=18) and the mothers (n=56) of these children also took part. The subjects were selected from some 240 Grade 3 children chosen from 11 urban, elementary public schools in Edmonton, as part of a larger study. From this larger sample, all those children who satisfied the criteria for inclusion in the FA group, participated in the study. The FP comparison group was obtained by randomly drawing 18 boys and 10 girls from the FP subjects of the larger sample.

The FA group was defined by the following characteristics:

(i) Absence was due to separation or divorce

(ii) The father had been absent for at least two consecutive years prior to data collection. The mean length of absence for boys was 54 months (SD=24 months) and for girls 56 months (SD=24 months).

(iii) There was no stepfather, common law father or other adult male reportedly living in the household at the time of data collection.

Table 1 reports the frequency of contact between the FA subjects and their absent fathers. It indicates that the quantity of contact experienced by the majority of the subjects with their absent fathers is low, being on the average about six hours a month for fathers living in Edmonton, and about three weeks a year for fathers outside of the immediate area.

Table 1

Quantity of Contact Between FA Subjects

and Their Absent Fathers

Frequency of Contact	Number of Males	Number of Females
1. Fathers living in Edmonton (Hours per month)		
0	8	2
1-5	1	-
6-10	3	-
11-15	2	-
16+	1	2
2. Fathers living outside Edmonton (Weeks per year)		
0	-	1
1-2	1	2
3-4	2	1
5+	-	2

The FP group was defined by the following characteristics:

(i) In a typical week the father spent no more than one twenty-four hour period away from his family.

(ii) In a typical week the father spent a minimum of eleven hours interacting with his child ($\bar{X}$=22.5; SD=8.1).

(iii) The father had had no more than three jobs in the past five years ($\bar{X}$=1.5; SD=0.63).

Subjects were without exception Caucasion, and all spoke English as their first language. There were no significant differences in mean ages between FA and FP male and female children; nor were there any significant differences in standard deviation. Table 2 indicates that the average age of subjects was approximately eight years, three months. Furthermore, there were no significant differences between the FA and FP groups in terms of children who had repeated a grade (X^2=0.747; df=1; p=0.388) or for the number of subjects in current resource room placement (X^2=1.00; df=1; p=0.354). The two comparison groups were also of similar family size and sibling distribution, as Table 3 shows. The table indicates that on the average subjects in both groups had two siblings.

Father absent and FP males and females were also similar in terms of intelligence. Table 4 presents the ANOVA summary data for the WISC-R Verbal, Performance and Full Scale scores. The relevant means and standard deviations appear in Table 5. These tables indicate that all groups fall within the average range of intelligence, and that the small differences in their scores are not statistically significant.

In addition, for both the FA and FP subjects there were no

Table 2

Means, Standard Deviations and t-test Data for Age Characteristics (in months) of FA and FP Children

	FA			FP				
	N	Mean	S.D.	N	Mean	S.D.	t	P
Males	18	100.0	5.986	18	101.3	4.935	-0.411	0.645
Females	10	101.2	5.342	10	100.8	4.211	-0.357	0.723

Table 3

Means, Standard Deviations and t-test Data for Family Size and Sibling Distribution Characteristics of FA and FP Children

	FA (n=28)		FP (n=28)			
	Mean	S.D.	Mean	S.D.	t	P
Younger sisters	0.393	0.567	0.357	0.489	0.253	0.802
Older sisters	0.536	0.922	0.607	0.786	-0.312	0.756
Younger brothers	0.321	0.548	0.464	0.631	-0.729	0.469
Older brothers	0.679	0.905	0.571	0.997	0.421	0.675
Family size	2.929	1.586	3.000	1.721	-0.212	0.871

Table 4

ANOVA Summary Data for WISC-R Verbal, Performance and Full Scale Scores

Source	MS	df	F-Ratio	P
Verbal				
A (Sex)	73.716	1	0.669	0.417
B (FA-FP)	27.161	1	0.247	0.622
AB	90.291	1	0.819	0.369
Error	110.145	52		
Performance				
A	53.447	1	0.696	0.408
B	70.879	1	0.923	0.341
AB	121.355	1	1.579	0.214
Error	76.828	52		
Full Scale				
A	1.477	1	0.021	0.884
B	50.161	1	0.727	0.398
AB	124.891	1	1.809	0.184
Error	69.012	52		

Table 5

Means and Standard Deviations for WISC-R Verbal, Performance and Full-Scale Scores

	FA			FP		
	N	Mean	S.D.	N	Mean	S.D.
Verbal						
Males	18	100.56	8.82	18	101.06	9.22
Females	10	105.60	12.79	10	100.80	8.58
Performance						
Males	18	104.67	7.02	18	105.61	7.44
Females	10	105.70	11.26	10	99.50	11.85
Full Scale						
Males	18	102.44	6.87	18	102.78	7.18
Females	10	105.90	8.39	10	100.00	10.00

significant differences in reported time spent interacting with the mother, spent in contact with significant males (other than the father) or in contact with significant females (other than the mother). The data is presented in Table 6. It indicates that on the whole, subjects spent about three and a half hours each day in interaction with their mothers, and about one and a half hours daily in contact with significant males and females other than their parents.

There were no significant differences between the FA and FP groups on a number of important mother related characteristics. Table 7 reveals that the mothers were similar in employment, age, educational and medical characteristics, that they reported similar data in regard to the birth of the subjects and separation from them in their preschool years.

Table 8 indicates that there are no statistically significant differences between the FA and FP children in terms of medical history, as reported by the mothers. The p value for bedwetting, however, is worth noting. Although not statistically significant, the small number of subjects involved in the analysis suggests that there may in fact be a meaningful difference between the two groups, with more FA than FP mothers reporting that their children were eneuretic.

The above data reveals many similarities between the FA and FP groups. But other comparisons indicate some statistically significant differences. For instance, the FA children had attended a mean number of 2.2 schools since commencing their formal education, whereas the equivalent mean for the FP children was 1.25. Thus, FA children had changed school almost twice as often as the FP children. This difference was highly significant ($X^2=7.67$; df=1; $p < .01$). Another

Table 6

Frequency of Contact With Significant Adults

(Hours per Week)

	FA (n=28)		FP (n=28)			
Adult	Mean	S.D.	Mean	S.D.	t	P
Mother	25.60	11.70	27.00	11.06	0.153	0.786
Significant Males (Except father)	12.14	4.16	10.68	4.38	-0.532	0.597
Significant Females (Except mother)	12.12	3.84	9.28	4.11	-1.063	0.292

Table 7

Frequency Data and Chi Squared Values for FA and FP

Mother Related Characteristics

Characteristics	FA Percentage	FP Percentage	X^2	df	p
Working	36	42	0.299	1	0.584
Age 1. < 35 yrs	25	18	1.121	2	0.572
2. 36-40 yrs	62	61			
3. 41 + yrs	13	21			
Education					
1. < Gd. 12	36	42	3.89	2	0.165
2. Gd. 12	25	25			
3. Gd. 12 +	39	33			
Medical problems	7	3	0.00	1	-
Biological mother	100	96	0.00	1	-
Difficult birth	18	21	0.00	1	-
Premature child	0	3	0.00	1	-
Separated from child before 5 years old	7	0	2.07	1	0.489

Table 8

Frequency Data and Chi Square Values for Medical Characteristics of FA and FP Children

	FA	FP			
Medical Characteristics	Percentage	Percentage	X^2	df	p
Serious illnesses	18	21	0.000	1	-
Serious accidents	11	4	0.00	1	-
Speech difficulties	7	21	0.53	1	0.438
Vision difficulties	14	11	0.31	1	0.611
Hearing difficulties	7	4	0.04	1	0.871
Co-ordination difficulties	21	7	1.93	1	0.186
Frequent colds	11	4	0.06	1	0.793
Allergies	25	21	0.06	1	0.792
Stomach problems	14	18	0.43	1	0.542
Head colds	3	14	0.31	1	0.626
Nightmares	3	11	2.00	1	0.152
Betwetting	29	11	3.09	1	0.070

important difference between the samples was that 82% of the FA subjects lived in multiple housing situations (e.g., high rise apartments, row houses) compared to 18% of the FP subjects. Eighty-two percent of the FP subjects lived in a single family dwelling, either renting or owning the property, compared to 18% of the FA children. This difference in housing situation was highly significant (X^2=24.03; df=1; p=0.00). Also, significantly more of the FA subjects had attended a day care in their pre-school years than had the FP subjects (X^2=4.38; df=1; p=0.036).

Most important, however, were the very significant differences observed in family income between the two groups. The average income of the FA group was $8,000 per annum, compared to $22,000 per annum for the two parent families ($\bar{X}_{FA}$=$8,000; SD_{FA}=$6.47; $\bar{X}_{FP}$=$22,000; SD_{FP}=$18.98, t=6.539, df=54, p=0.000). Thus, the FP group had a mean income almost three times greater than that of the FA group. The standard deviations varied in a similar manner, with the former group being the more homogeneous.

To summarize, the FA and FP groups appear to be representative samples of their respective populations. Children in the FA group have little contact with their biological father; in comparison with the FP children they have changed schools more often, and they are more likely to live in multiple housing situations and to experience a very reduced family income. These are all factors that researchers (e.g., Ferri & Robinson, 1976) have found to be associated with the single parent family situation. On the other hand, there were no differences between the FA and FP samples for subject characteristics of age, race, language, intelligence, grade, grade repeats, resource

room placement and medical history. There were also no differences between the two groups in terms of family size and sibling distribution. The children further experienced similar frequencies of contact according to mothers' reports, with their mother and other significant adults. In addition, the mothers of the two groups of children did not differ on a number of important variables such as working status, age, education, medical history and their child's birth history. All in all, therefore, the FA and FP groups on the one hand represent the differences typical of their situation, and on the other hand, are similar on a number of variables that researchers have suggested interact with family composition to influence dependent variable outcomes.

Instruments

Standardized Achievement. The Wide Range Achievement Test (WRAT-Jastak and Jastak, 1978) measures reading, spelling and arithmetic achievement. It comprises two levels, the first for five through to eleven years, and the second for twelve years through to adulthood. The test yields grade equivalent ratings, percentiles, and standard scores. Jastak and Jastak report that when general ability is held constant, females consistently score more highly than males in reading and spelling. Significant sex differences are not evident in arithmetic, however.

The WRAT has been shown to correlate highly with other measures of achievement. Jastak and Jastak report a correlation of .88 between WRAT grade levels and mid-term grades for one sample of fifth grade students. They also report the correlations between the WRAT and the Stanford Achievement Test (SAT) obtained by the U.S.

Public Health Survey (1970) from a national sample of school aged children. For the Grade 3 sample, the correlations between the WRAT reading grade level scores and grade level scores for the verbal subtests of the SAT, ranged from .71 to .81. The equivalent correlations for the arithmetic subtests were within the .64 to .70 range. Intercorrelations between WRAT subtests, at Level 1, are reported to be from .80 to .94 for reading and spelling, .69 to .79 for reading and arithmetic, and .70 to .77 for spelling and arithmetic.

Overall, the WRAT is widely used as a measure of standardized achievement and correlational evidence indicates that it is a valid instrument for ascertaining current levels of achievement.

Academic Locus of Control. The short form of the Intellectual Achievement Responsibility Questionnaire (IAR) was used to measure academic locus of control. Crandall (1968) recommended the use of the short form with elementary school children. The IAR purports to measure children's perceived sources of control for success and failure outcomes in the school environment. It assesses whether children are likely to attribute responsibility for the outcomes to themselves or to significant others such as parents, teachers and peers.

Descriptively, the short form of the questionnaire includes 20 of the 34 items in the IAR. The items are divided equally into those that assess internal responsibility for success outcomes (I+) and those that tap internal responsibility for failure experiences (I-). The subscale scores range from 0 (most external) to 10 (most internal).

Crandall, Katkovsky and Crandall (1965) report that the regular

and short form subscale correlations are .90 for the I+ and .91 for the I- subscales, while Spearman-Brown split half reliabilities are .54 and .57 for the I+ and I- subscales, respectively. According to Robinson and Shaver (1973) two month test-retest reliabilities range from .47 to .66 for the I+ subscale and .69 to .74 for the I- subscale. While the IAR correlates moderately strongly with report card grades, the range being from the .30's to the .50's, the relationship between the IAR and IQ scores is weak, reported correlations ranging from .14 to .26.

The IAR has been widely used and acclaimed by researchers. As Robinson and Shaver (1973) conclude, the instrument is a carefully developed scale which shows evidence of acceptable reliability, and discriminant and convergent validity.

Classroom Behaviours. The Pupil Rating Scale (PRS: Myklebust, 1971) was developed to provide a range of classroom observations on children in five areas of behaviour that are related to success in school learning. The author specifically designed the scale as a screening device for learning disabilities.

Descriptively the test comprises five subtests -- auditory comprehension, spoken language, orientation, motor coordination and personal-social behaviour. The subscales consist of a number of dimensions on which the teacher must rate the child from 1 to 5. Data reported in the manual (Myklebust, 1971) indicate that significant sex differences, in favour of females, are evident for the subtest and the total test scores.

The PRS appears to have good disciminant validity. Myklebust reports that when a large sample of children were divided into pass

and fail groups on the basis of a battery of verbal and non-verbal screening tests, there were significant differences between the groups on each of the subtest and total test scores of the PRS, for both boys and girls. When these same children were divided into "pass", "borderline", and "learning disabled" groups, Myklebust reports that the PRS differentiated very effectively between the "pass" and "borderline" groups, more effectively in fact than 49 other measures frequently used for diagnostic purposes. This was also true for comparison between the "borderline" and "learning disability" groups.

Data reported in the manual indicate that there is little correlation between PRS subtest and total test scores and intelligence, as measured by the Primary Mental Abilities Test. Correlations between the two measures did not exceed .35. On the other hand, there is a moderately strong relationship between PRS subscale and total scale scores and school grades. Except for motor coordination, correlations between the PRS and reading, spelling and arithmetic grades range from .30 to .53. Intercorrelations between the subtests of the Pupil Rating Scale are lowest for motor coordination. Except for this area of behaviour, the intercorrelations are high and range from .79 to .90.

In short, the Pupil Rating Scale appears to discriminate reliably and validly between children who are performing adequately and those who are performing inadequately within the five areas of classroom behaviour which it measures.

The Home Environment. The home environment data was collected via a structured interview with the mother which took approximately one hour to complete. The interview had two aims; firstly to provide

the information essential for clearly identifying FA and FP samples, and secondly, to explore some of those areas which research has suggested might be productive in an investigation of paternal absence effects. In regard to sample definition, data was collected on the mother's marital history, family composition, quantity of adult-child interactions, paternal and maternal age, educational and occupational histories, maternal medical histories, family income and the like. In exploring some of the consequences of father absence for mother and child, the interviewer asked questions regarding maternal perceptions of children's educational aspirations, abilities and personal-social adjustment behaviours. She explored the family's nutritional standards, the child's and the mother's social, recreational and educational activities, and the mother's financial, child care and personal contentment concerns. Questions were structured in a forced choice (yes/no) or Likert scale manner (see Appendix A for Questionnaire).

Hypotheses

School Achievement. One of the major purposes of the study to be reported was to investigate the school achievement of FA children in terms of sex and time of absence variables. It is clear from the literature review that there are trends from the better controlled studies for children from families that have experienced separation or divorce to achieve less highly than children from two parent families. It is also evident that father absence appears to have a more detrimental effect on the school achievement of boys than girls, and that separation from the father in the preschool years might have a greater effect on achievement than the later occurence

of father absence. Accordingly, the following hypotheses for school grades and Wide Range Achievement Test scores were proposed.

1.1. FA subjects will obtain significantly lower school grade and WRAT scores than FP subjects.

1.2. FA males will obtain significantly lower school grade and WRAT scores than FA females.

1.3. Children who experienced father absence before 5 years of age will obtain significantly lower school grade and WRAT scores than FP children. There will be no significant differences in school grade and WRAT scores between children who experienced father absence after five years and FP children.

Academic Locus of Control. A further focus of the present study was academic locus of control. When the relationships between social environment and locus of control, on the one hand, and achievement and locus of control, on the other hand, are considered in light of the environments experienced by, and the achievement levels typical of FA children, it seems likely that FA and FP children will show some differences in their perceived sources of control for success and failure outcomes in the classroom. Moreover, it seems likely that these differences will be particularly evident for success outcomes. If FA children, who tend to achieve less well than FP children, internalize lower self concepts of ability, they are more likely to attribute success to chance or the teacher's kindness rather than to their personal characteristics or behaviours. On the other hand, they are apt to take responsibility themselves for failure outcomes, attributing them to lack of ability. Accordingly,

it was hypothesized that:

2.1 FA children will obtain significantly lower scores on the I+ (successful events) subscale of the IAR than FP children.

2.2 There will be no significant differences in I- (failure events) subscale scores between the FA and FP groups.

Teacher Perceptions

Also of interest to the current study are teacher perceptions of FA and FP children. The Pupil Rating Scale (PRS) was chosen to measure teacher perceptions of their pupils, as it taps a number of behaviours that are closely related to school success and that have been investigated within the context of the teacher expectancy literature. Research suggests that the relationship between teacher expectancy and student achievement is one of reciprocity. Teachers may or may not judge their pupils' attainment accurately. However, once that judgment has been made, it is usually effective in convincing the learner of its validity, and so he or she comes to perform accordingly, thus reinforcing the teacher's initial perception. In light of the effects of father absence on school performance and the relationship between expectancy and achievement, the following hypotheses were formulated:

3.1 FA subjects will obtain significantly lower subscale and total scale scores on the PRS than FP subjects.

3.2 FA boys will obtain significantly lower subscale and total scale scores on the PRS than FA girls.

3.3 Children who experienced father absence before five years of age will obtain significantly lower subscale and total

scale scores on the PRS than FP children. There will be no significant differences in PRS subscale and total scale scores between children who experienced father absence after five years and FP children.

The Home Environment

The final aspect to be investigated by the current study was that of the subjects' home environment. In particular, three components of the maternal world that have been shown to influence a child's school achievement or to differentiate between FA and FP homes, were explored. Evidence indicates that the single mother's social and economic milieu entails considerable stress in areas of finance, child care and personal needs. Accordingly, it was hypothesized that:

4.1 FA mothers, compared to FP mothers, will report significantly more concern about matters of finance, child care and personal needs.

There is some suggestion from research that FA compared to FP mothers perceive their children as holding lower school achievement aspirations. Moreover, although maternal perceptions of ability have not been examined in the context of father absence, there is a relationship between maternal perceptions of ability and school achievement, on the one hand, and between father absence and school performance, on the other hand. Consequently it was predicted that:

4.2 FA mothers, compared to FP mothers will perceive their children as having significantly lower educational aspirations and abilities.

Finally, the literature indicates that divorced or separated

mothers, compared to two parent mothers, tend to perceive their children as having more personal-social behaviour problems. In light of the existing research outcomes, it was hypothesized that:

4.3 FA mothers, compared to FP mothers will perceive their children as manifesting more personal-social behaviour problems.

Procedure

The WISC-R and the WRAT were administered to subjects individually in the spring (April/May) of 1978. The IAR was administered in another testing session with some other instruments not relevant to this study, during the same period. The children completed the IAR in their regular classroom groups.

At the beginning of the data collection session, subjects were told that the researchers wanted to find out something about "kids feelings and attitudes towards school and their schoolwork". Teachers were absent during testing. The children were urged to respond honestly and assured that neither teachers nor parents would see their answer booklets. The fact that there were no right or wrong answers was emphasized. The items were read aloud so as to minimize any possible confounding effects due to reading problems and clarification was offered when requested. Such occasions, however, were rare. School grades were collected at the end of the 1977-78 academic year.

The WISC-R, the WRAT and the IAR comprised three of several scales administered to these children as part of a larger project concerned with the affective development of learning disabled and normally achieving school children. Thus the FA and FP subjects had

no indication that their responses in particular would provide the basis of this study.

Teachers completed the PRS for each child in the class, again as part of the larger study, within one week of the time during which their pupils were tested. Teachers were informed that the study was focusing on affective characteristics and correlates of learning, for a cross-section of normally achieving children. Thus, teachers were unaware that a comparison of FA and FP subjects would be made on the basis of their ratings.

Data from the mothers were obtained through an hour long interview conducted in their homes, by two female graduate students. Prior to the interview, letters were mailed to the mothers explaining the nature of the study and requesting their cooperation in the project. The letter was followed by a phone call from the interviewers who explained the study and arranged for a suitable time to see the mothers. The interviews were all completed within four weeks of the other data collection. Mothers were informed that the study was exploring the affective characteristics and correlates of school learning, and that their child was one of many that had been selected from a number of schools on the basis of their normally achieving characteristics. More than 90% of the mothers agreed to be interviewed. The interview requested input concerning the mother and child's demographic and medical history, child behaviours and activities, family nutrition, educational data, family composition, mothers activities and anxieties. Again there was no reason to suspect that the FA or FP mothers could in any way know that their response would be used as a part of the present study.

Design

The particular design used in this study has been discussed by Campbell and Stanley (1963) under the term "static group comparison". Campbell & Stanley indicate that the design is pre-experimental and comprises the comparison of a group which has experienced X with one which has not, for the purpose of establishing the effect of X. The major problem with this design is that, in the case of significant differences on the dependent measures, there is no way of certifying that the groups would have been equivalent had it not been for X. A host of uncontrolled and unrecognized variables, apart from X, may have helped cause the differences. Thus, it is particularly important to describe and control for variables that the literature has identified as interacting with the condition X to influence dependent measure outcomes.

A 2 x 2 analysis of variance design, the respective levels being sex (male and female) and family composition (FA and FP) was used to test the hypotheses concerned with:

1. Significant differences in school achievement for family composition (1.1) and sex (1.2)

2. Significant differences for family composition in the IAR I+ (2.1) and I- (2.2) subscales.

3. Significant differences in PRS scores for family composition (3.1) and sex (3.2).

A 1 x 3 analysis of variance was used to investigate the time of absence variable, the three degrees of absence being absence before five years, absence after five years, and FP. The one-way ANOVA design was used to test the hypotheses relating to:

1. Significant differences in school achievement for time of absence (1.3).

2. Significant differences in PRS scores for time of absence (3.3).

Data arising from the interview with the mother was analyzed by means of the t-test and chi-square statistics. Product moment correlations were also computed in order to examine the relationships amongst the variables.

CHAPTER IV

RESULTS

The results are presented in the following manner. Firstly, the product moment correlations between the major variables investigated by the study are discussed. Secondly, analysis of variance (ANOVA) data pertaining to the achievement, academic locus of control and teacher perceptions hypotheses are reported, and finally t-test and chi-square data relevant to the home environment hypotheses are considered.

Correlational Data

In order to investigate the relationships between the major variables employed in this study, product-moment correlations were calculated on the data for the 28 FA and 28 FP subjects. Correlations were calculated for school grades, standardized achievement, academic locus of control and teacher perceptions.

Looking firstly at school achievement, the two measures used by the current study were school grades and the Wide Range Achievement Test (WRAT). Subjects scores on the WRAT reading and spelling subscales were moderately ($r=-.383$; $p < .01$) to highly ($r=.504$; $p < .001$) correlated with their school grades in reading, language, spelling, arithmetic, writing and grade point average (GPA) (See Appendix B, Table A). On the other hand, subjects' scores on the WRAT arithmetic subscale were unrelated to school grades with the exception of arithmetic. WRAT arithmetic correlated $r=.243$ ($p < .05$) with school arithmetic. These findings suggest that the WRAT reading and spelling subscales measure similar abilities to those tested in school learning

situations. While this is not true of the arithmetic subscale, there is some relationship between it and classroom achievement in arithmetic. Because the two achievement variables investigated by the current study appear to measure many common skills, only the ANOVA data pertaining to the WRAT will be presented in the results section. The school grade ANOVA data is contained in Appendix C.

The correlational data suggest a moderate relationship ($r=.349$ to $r=.404$; $p < .01$) between verbal intelligence as measured by the WISC-R and school grade achievement (See Appendix B Table B). A similar relationship emerged between verbal WISC-R scores and WRAT reading and spelling subscale scores (See Appendix B Table B). There was no relationship between WISC-R performance scores and school or standardized achievement scores, while performance on the total WISC-R revealed insignificant ($r=.218$) to low but significant ($r=.310$; $p < .05$) correlations with achievement in the classroom and on the WRAT. Thus it appears that for this group of subjects, the verbal component of intelligence was most strongly related, the performance component unrelated and the total intelligence score slightly related to both standardized and classroom achievement.

The second variable investigated by the current study was that of academic locus of control as measured by the IAR. Correlations between the WISC-R and the IAR (See Appendix B Table C) indicated no relationship between verbal, performance or total intelligence test scores and internal attributions for either success or failure outcomes. An investigation of the relationship between school grades and the IAR revealed non-significant ($r_{arith, I-}=.170$) to moderately significant ($r_{writing, I-}=.374$, $p < .01$) correlations between classroom achievement

and attributions of responsibility for success and failure outcomes (See Appendix B Table C). On the other hand, standardized reading, spelling and arithmetic achievement was unrelated to internal attributions of responsibility for both success and failure outcomes for the subjects employed by the current study.

In combination, these findings suggest firstly that there is no relationship between intelligence and academic locus of control for the present group of subjects, and secondly that while there is a weak relationship between the affective variable and achievement in the school milieu, the relationship does not necessarily generalize at this state, to achievement situations outside the classroom context.

The third variable investigated by the present study was that of teacher ratings on the PRS. From the correlational data presented in Appendix B Table D it is evident that there was little relationship between WISC-R sub and total test scores and PRS sub and total test scores. The majority of the correlations were non-significant although results did indicate a low ($r=.299$; $p < .05$) to moderate ($r=.412$; $p < .01$) relationship between the verbal WISC-R component and teacher ratings, the only exception being motor coordination for which the correlation was nonsignificant. Correlations were non-significant for the WISC-R performance subscale and largely of non or low significant magnitude for total WISC-R scores, the only exception being the relationship with orientation which was moderately high ($r=.349$).

The correlations between PRS scores and school grades (see Appendix B Table D) indicate that on the whole there was a highly significant relationship between the two variables for the subjects employed in the present study. With the exception of motor

coordination, correlations between the teacher ratings and school grades were moderate ($r=.362$; $p < .01$) to high ($r=.605$; $p < .001$), the majority being of the latter magnitude. Thus children who were rated more highly by teachers for auditory comprehension, spoken language, orientation and personal-social skills tended to achieve more highly in school than those with lower teacher ratings.

Similar findings emerged for the relationships between the PRS and the WRAT. Except for motor coordination, there were highly significant ($r=.539$ to $r=.799$; $p < .001$) relationships between teacher ratings and performance on the WRAT reading and spelling subscales. Correlations between PRS subscale scores and WRAT arithmetic tended to be moderate ($r=.349$ to $r=-.412$; $p < .01$), the exception being the lack of significance with personal-social behaviour ratings ($r=.226$).

Thus these findings indicate little relationship between intelligence and PRS ratings, but a strong relationship between teacher ratings of children's classroom behaviours and children's school and standardized achievement scores.

In sum, the correlational data presented above suggests that the achievement, academic locus of control and teacher rating scales employed by the present study are each measuring largely different dimensions of the subject's cognitive world.

Analysis of Variance Data

WRAT Grade Scores

Family Composition by Sex. The results of the two-way ANOVA for WRAT reading, spelling and arithmetic grade scores are presented in Table 9. The relevant means and standard deviations appear in Table 10. For reading, there is a significant family composition

effect (F=4.291, df=1,52; $p < .05$) with the FA group performing less well than the FP group (FA M=4.08, SD=1.175; FP M = 4.79; SD=1.61). Spelling yielded significant sex (F=4.112; df=1,52; $p < .05$) and sex by family composition effects (F=4.687, df=1,52; $p < .05$). In regard to the sex effect, males performed less well than females (M M=3.47; SD=0.86: F M=3.83; SD=1.10). Scheffe comparisons for the interaction indicated that there was a significant difference in performance for FA males and FA females (F=5.101, df=1,52; $p < .05$). The other inter-group comparisons were nonsignificant.

Like spelling, arithmetic also yielded significant sex (F=5.673, df=1,52; $p < .05$) and sex by family composition effects (F=4.735, df=1,52; $p < .05$). Again, males scored below females (M M=2.99; SD=0.35; F M=3.21, SD=0.32) and Scheffe comparisons for the interaction isolated a significant difference between FA males and FA females (F=5.673, df=1,52; $p = < .01$). The other inter-group comparisons were nonsignificant.

While the interaction was nonsignificant in the case of reading, Table 10 shows that the FA group again scored below the other three groups. In reading the FA females have depressed scores in comparison to the FP groups. However, for spelling and arithmetic their scores are more like those of the FP groups than the FA males. It is important to note that although there is a significant FA effect for reading, all groups are performing at or above their grade level. On the other hand, the mean scores for spelling indicate that FA males are performing approximately half a year behind their grade level and the level of the other groups. From the arithmetic means it is evident that FA males are achieving about twelve months below

Table 9

ANOVA Summary Data for WRAT Reading, Spelling and Arithmetic Grade Scores: Sex x Family Composition

Source	df	M.S.	F-Ratio	Probability
Reading				
A (Sex)	1	0.744	0.347	0.558
B (FA-FP)	1	9.202	4.291	0.043*
AB	1	1.443	0.673	0.416
Errors	52	2.145		
Spelling				
A	1	1.352	4.112	0.045*
B	1	0.022	0.069	0.300
AB	1	1.537	4.687	0.032*
Errors	52	0.328		
Arithmetic				
A	1	0.690	5.673	0.021*
B	1	0.094	0.777	0.382
AB	1	0.576	4.735	0.034*
Errors	52	0.122		

Scheffe Comparisons for Significant Interactions

Source		F-Ratio	Probability
Spelling			
FA: Male vs. Female	1,52	5.101	0.028*
Arithmetic			
FA: Male vs. Female	1,52	5.673	0.021*

*$p < .05$

Table 10

Means and Standard Deviations for WRAT Reading, Spelling and Arithmetic Grade Scores: Sex x Family Composition

	FA			FP		
	N	Mean	S.D.	N	Mean	S.D.
Reading						
Male	18	3.79	1.15	18	4.84	1.61
Female	10	4.37	1.20	10	4.75	1.61
Spelling						
Male	18	3.13	0.63	18	3.81	1.10
Female	10	3.88	0.97	10	3.77	1.22
Arithmetic						
Male	18	2.87	0.35	18	3.10	0.34
Female	10	3.30	0.33	10	3.12	0.30

their grade placement. However, the other three groups are also achieving five to seven months below their grade level.

To sum up, this analysis indicates that father absence results in lowered scores for males in reading, spelling and arithmetic, and for females in reading. None of the groups score below their grade level for reading achievement, but FA boys are achieving below grade level in spelling and arithmetic.

Time of Absence. The ANOVA summary data presented in Table 11 indicates no statistically significant differences for time of absence on WRAT reading, spelling or arithmetic grade scores. However, the result for reading suggests a possible difference between the FA and FP groups ($F=2.602$, $df=2,53$; $p < .10$). A look at the means (see Table 12) reveals a trend for FA before five years to be the most detrimental, and FP to be the least detrimental for reading and spelling achievement. This is not the case for arithmetic, however. There is little difference in the mean arithmetic scores for the three groups, but the FA after five years group scores lowest.

Overall then, there are no statistically significant differences for time of absence on WRAT reading, spelling and arithmetic grade scores although the results for reading may indicate a possible difference between groups.

Academic locus of control. Academic locus of control was measured by the Intellectual Achievement Responsibility Questionnaire (IAR). Separate analyses were performed for the I+ and I- subscales. The ANOVA summary data are presented in Table 13. Table 14 contains the individual means and standard deviations for the two variables. The data presented in Table 13 indicate a statistically significant

Table 11

ANOVA Summary Data for WRAT Reading, Spelling and Arithmetic Grade Scores: Time of Absence

Source	df	M.S.	F-Ratio	Probability
Reading	2	5.494	2.602	0.084+
Errors	53	2.111		
Spelling	2	1.130	1.167	0.319
Errors	53	0.969		
Arithmetic	2	0.065	0.459	0.634
Errors	53	0.143		

+ $p < .10$

Table 12

Means and Standard Deviations for WRAT Reading, Spelling and Arithmetic Grade Scores: Time of Absence

Source	N	Mean	S.D.
Reading			
FA before 5 years	16	3.781	1.003
FA after 5 years	12	4.292	1.462
FP	28	4.811	1.639
Spelling			
FA before 5 years	16	3.356	0.961
FA after 5 years	12	3.450	0.725
FP	28	3.793	1.071
Arithmetic			
FA before 5 years	16	3.056	0.432
FA after 5 years	12	2.983	0.401
FP	28	3.107	0.333

Table 13

ANOVA Summary Data for IAR I+ and I-

Subscale Scores: Sex x Family Composition

I+ Subscale

Source	df	M.S.	F-Ratio	Probability
A (Sex)	1	77.877	0.130	0.719
B	1	2755.250	4.607	0.037*
AB	1	1964.530	3.285	0.076+
Errors	52	597.991		

I-Subscale

Source	df	M.S.	F-Ratio	Probability
A	1	226.200	0.444	0.508
B	1	482.781	0.947	0.335
AB	1	268.781	0.527	0.471
Errors	52	509.589		

\+ $p < .10$

* $p < .05$

Table 14

Means and Standard Deviations for the IAR I+ and I-

Subscales: Sex x Family Composition

	FA			FP		
	N	Mean	S.D.	N	Mean	S.D.
I+						
Male	18	55.000	26.609	18	52.278	20.830
Female	10	45.100	27.921	10	72.100	22.794
I-						
Male	18	51.222	19.354	18	49.667	25.112
Female	10	51.600	21.886	10	40.900	21.746

family composition effect ($F=4.607$, $df=1,52$; $p < .05$) for the I+ subscale. Moreover, the sex by family composition interaction effect almost meets the probability level requirements for significance and certainly suggests a possible difference between the FA and FP groups ($F=3.285$, $df=1,52$; $p < .10$). As predicted, the I- subscale yielded no significant effects.

A look at the means and standard deviations (see Table 14) reveals that FA children are much less likely than FP children to ascribe responsibility for success outcomes to internal factors such as ability and effort. It follows that they are more likely, therefore, to perceive academic success as being under the control of external factors such as task difficulty or teacher's whim. This is more particularly true of FA females than of FA males. On the other hand the results of the I- subscale suggest that the comparison groups hold similar external/internal attributions of responsibility for failure outcomes. In fact the means show that FA subjects are more likely to ascribe responsibility for failure experiences to internal sources than are their FP counterparts.

Considered together, the results for academic locus of control, as measured by the IAR suggest that children from one parent families attribute responsibility for success outcomes more to external factors than do children from two parent families. This is particularly so for FA females. However, FA and FP children are similar in their internal/external orientation for failure experiences.

Teacher Perceptions

Family composition by sex. Teacher perceptions of the children's classroom behaviours were measured via the Pupil Rating Scale (PRS).

Table 15 which presents the ANOVA summary data portrays a number of significant differences for subscale and total scale scores. There are significant sex (A) and family composition (B) effects for auditory comprehension (A: $F=5.795$, $df=1,52$; $p<.05$: B: $F=8.596$, $df=1,52$; $p<.01$), personal-social behaviours (A: $F=9.097$, $df=1,52$; $p<.01$: B: $F=7.259$, $df=1,52$; $p<.01$), and total scores (A: $F=5.895$, $df=1,52$; $p<.05$: B: $F=9.413$, $df=1,52$; $p<.01$). The spoken language subscale yielded a significant family composition ($F=9.283$, $df=1,52$; $p<.01$) and sex by family composition interaction effect ($F=4.758$, $df=1,52$; $p<.05$), and the orientation subscale, a significant family composition effect ($F=8.099$, $df=1$; $p<.01$). There were no significant differences for motor coordination. Scheffe multiple comparisons revealed that for the spoken language interaction effect, FA males were rated significantly lower than FA females ($F=5.795$, $df=1,52$; $p<.05$) and significantly lower than FP males ($F=4.507$, $df=1,52$; $p<.05$).

Table 16 which presents the means and standard deviations, indicates that sex effects consistently favour females, while the family composition effects consistently favour the FP situation. Once again, the FA males score below each of the three other comparison groups, while the FA female scores tend to be more like those of the FP groups than the FA males. The area in which the FA females tend to be least like their FP female counterparts, is that of personal-social behaviour.

The PRS provides strong evidence over a number of subscales that measure classroom behaviours important for success in learning, that teachers rate FA children less highly than FP children, and that

Table 15

ANOVA Summary Data for the PRS: Sex x Family Composition

Source	df	M.S.	F-Ratio	P
Auditory Comprehension				
A (Sex)	1	47.781	5.795	0.019*
B (FA-FP)	1	70.875	8.596	0.005**
AB	1	12.153	1.474	0.230
Errors	52	8.245		
Spoken Language				
A	1	25.400	2.619	0.112
B	1	90.018	9.282	0.004**
AB	1	46.143	4.758	0.034*
Errors	52	9.698		
Orientation				
A	1	14.629	2.115	0.152
B	1	56.000	8.099	0.006**
AB	1	15.245	2.205	0.144
Errors	52	6.915		
Motor-Coordination				
A	1	2.000	0.619	0.435
B	1	1.446	0.447	0.507
AB	1	0.248	0.077	0.783
Errors	52	3.234		
Personal-Social Behaviour				
A	1	251.436	9.097	0.004**
B	1	200.643	7.259	0.009**
AB	1	0.057	0.002	0.964
Errors	52	27.639		
Total				
A	1	993.149	5.895	0.019*
B	1	1585.790	9.413	0.003**
AB	1	153.526	0.911	0.344
Errors	52	168.465		

* $p < .05$
** $p < .01$

Table 16

Means and Standard Deviations for the PRS:

Sex x Family Composition

	FA			FP		
	N	Mean	S.D.	N	Mean	S.D.
Auditory Comprehension						
Male	18	9.000	2.411	18	11.944	3.467
Female	10	11.000	2.798	10	12.900	3.142
Spoken Language						
Male	18	12.000	3.299	18	15.300	3.222
Female	10	15.889	3.262	10	15.400	3.315
Orientation						
Male	18	10.944	2.358	18	13.100	2.847
Female	10	13.722	2.406	10	13.700	3.002
Motor Co-ordination						
Male	18	9.444	2.216	18	9.700	1.471
Female	10	9.667	1.889	10	10.200	1.608
Personal-Social Behaviours						
Male	18	20.611	5.713	18	25.100	5.594
Female	10	24.444	5.500	10	28.800	5.572
Total						
Male	18	65.566	1.147	18	74.800	1.420
Female	10	75.667	1.206	10	81.000	1.674

there is a trend, albeit non significant, for FA males to be rated less highly than FA females.

Time of absence. The ANOVA summary data for PRS subscale and total scale scores is presented in Table 17. It indicates that time of absence has a significant effect on teacher ratings for the total scores and each of the subscale scores except motor coordination. A look at the means for each of the three groups (see Table 18) reveals that for each subscale, the FA before five years group received the lowest ratings while the FP group obtained the highest. Scheffe comparisons indicated significant differences between the FA before five years and FP groups for auditory comprehension ($F=3.572$, $df=2,53$; $p < .05$), spoken language ($F=3.298$, $df=1,53$; $p < .05$), orientation ($F=3.412$, $df=2,53$; $p < .05$), personal-social behaviour ($F=3.789$, $df=2,53$; $p < .05$) and the total score ($F=3,573$, $df=2,53$; $p < .05$). None of the other inter-group comparisons were significant.

Overall, then, the total score on the PRS and four of the five subscales yielded significant differences in ratings for the time of absence. The result was explained by the differences between the FA before five years and the FP groups.

The Home Environment

Consequences of the social and economic context for the husbandless mother. The consequences of the social and economic context for the husbandless mother, were explored in terms of financial, child care and personal happiness concerns. Table 19 presents the results. It reveals that FA mothers in comparison to FP mothers, were significantly more concerned about their current ($t=3.085$, $df=54$; $p < .01$) and future financial situations ($t=2.502$, $df=54$, $p < .05$). This

Table 17

ANOVA Summary Data for the PRS: Time of Absence

Source	df	M.S.	F-Ratio	Probability
Auditory Comprehension	2	36.961	4.034	0.023*
Errors	53	9.163		
Language Spoken	2	45.260	4.169	0.021*
Errors	53	10.856		
Orientation	2	28.875	3.945	0.025*
Errors	53	7.316		
Motor-Coordination	2	2.247	0.712	0.495
Errors	53	3.158		
Personal-Social Behaviour	2	120.001	3.856	0.027*
Errors	53	31.120		
Total	2	849.477	4.597	0.014*
Errors	53	184.787		

Scheffe Comparisons for Significant Interactions

Source	df	F-Ratio	Probability
Auditory Comprehension			
FA before 5 yrs vs FP	2,53	3.572	0.035*
Spoken Language			
FA before 5 yrs vs FP	2,53	3.298	0.045*
Orientation			
FA before 5 yrs vs FP	2,53	3.412	0.040*
Personal-Social			
FA before 5 yrs vs FP	2,53	3.789	0.029*
Total			
FA before 5 yrs vs. FP	2,53	3.573	0.035*

* $p < .05$

Table 18

Means and Standard Deviations for the PRS: Time of Absence

Source	N	Mean	S.D.
Auditory Comprehension			
FA before 5 years	16	9.750	2.587
FA after 5 years	12	10.417	2.662
FP	28	12.286	3.354
Language Spoken			
FA before 5 years	16	13.063	3.445
FA after 5 years	12	13.333	3.013
FP	28	15.714	3.253
Orientation			
FA before 5 years	16	11.500	2.366
FA after 5 years	12	12.000	3.001
FP	28	13.714	2.955
Motor Co-ordination			
FA before 5 years	16	9.250	2.147
FA after 5 years	12	9.917	1.899
FP	28	9.857	1.508
Personal-Social			
FA before 5 years	16	21.188	5.411
FA after 5 years	12	23.583	5.703
FP	28	26.000	5.584
Total			
FA before 5 years	16	65.188	1.326
FA after 5 years	12	69.250	1.099
FP	28	77.571	1.521

Table 19

T-test Data for Concerns Reported by FA and FP Mothers

	FA		FP				
Concern	Mean	S.D.	Mean	S.D.	df	t	P
Current Financial	2.464	1.071	1.714	0.718	54	3.085	0.003**
Loneliness	2.071	0.604	1.571	0.634	54	3.021	0.004**
Child's School Achievement	2.500	1.000	2.071	0.979	54	1.621	0.111
Relaxation	2.143	0.651	2.036	0.576	54	0.258	0.517
Children's Discipline	1.893	0.629	1.821	0.548	54	0.453	0.652
Enjoyment	1.964	0.793	1.821	0.729	54	0.705	0.484
Future financial	2.393	1.066	1.750	0.844	54	2.502	0.015*
Depression	2.000	0.471	1.821	0.390	54	1.544	0.128
Responsibilities	1.607	0.629	1.357	0.488	54	1.662	0.102
Babysitters	1.607	0.629	1.500	0.577	54	0.664	0.509
Total	20.643	3.603	17.464	2.899	54	3.637	0.000**

* $p < .05$
** $p < .01$

latter also reported significantly more loneliness than the former ($t=3.201$, $df=54$; $p<.01$). For each of the variables measured, trends consistently support the notion of greater concern on the part of the FA mothers. The differences between the two groups over the whole scale were highly significant (FA M=20.643, SD=3.603; FP M=17.464, SD=2.899, $df=54$; $t=3.637$; $p=0.000$).

Mothers' perceptions of their children's educational aspirations and abilities. Table 20 reports the means, standard deviations and t-test data for mothers' ratings of their children's educational aspirations and abilities. A significant difference was obtained between FA and FP maternal perceptions of their children's current academic aspirations (FA M=2.786, SD=0.995; FP M=2.286, SD=0.599; $t=2.278$, $df=54$; $p<.05$). The majority of the one parent group stated that their children "like to get about the same grades as everyone else" while most of the two parent mothers indicated that 'their children like to get better grades than almost everyone else". Furthermore the variance of the one parent group was significantly greater than that of the two parent group ($F=2.75$, $df=54$; $p=0.01$).

For maternal perceptions of children's abilities, results revealed that the two groups of parents perceive their children as being essentially similar in their abilities to learn, to complete university and to do arithmetic, printing/writing, spelling and language tasks. The two parent mothers rated their children as significantly higher in reading ability than did the one parent mothers (FA M=3.14, SD=1.11; FP M=3.71, SD=0.85; $t=-.2.16$, $df=54$; $p<.05$).

Data collected and analyzed, but not directly relevant to the

Table 20

T-test Data for Mothers' Ratings of Children's Educational Aspirations and Abilities

	FA		FP				
Mothers Perception	Mean	S.D.	Mean	S.D.	df	f	P
Children's academic aspirations	2.786	0.995	2.286	0.599	54	2.78	0.027*
Ability to learn	2.2571	0.634	2.464	0.793	54	0.559	0.579
Ability to complete university	1.893	0.685	1.821	0.669	54	0.395	0.695
Ability for arithmetic	3.500	0.923	3.321	0.863	54	0.748	0.458
Ability for printing/ writing	3.143	0.932	3.321	0.772	54	-0.781	0.438
Ability for reading	3.143	1.113	3.714	0.855	54	-2.155	0.036*
Ability for spelling	3.071	0.979	3.393	0.685	54	-1.424	0.163
Ability for language	3.214	0.876	3.463	0.637	54	-1.22.	0.227

*p < .05

hypotheses is interesting to note in relation to the above results. For instance, while there was a significant difference in FA and FP mothers' perceptions of their children's scholastic aspirations, the two groups of mothers themselves did not differ in the importance they placed on the grade their children received in school (FA M=1.893, SD=0.786; FP M=1.679, SD=0.612; df=54, t=1.138; p=0.259), nor on the importance of grades in relation to other aspects of school (FA M=2.214, SD=0.499; FP M=2.107, SD=0.416; t=0.873, df=54; p=0.387). Furthermore, mothers responses in the interview indicated a significant difference between FA and FP children in the amount of time spent on reading (not connected with school work) on a typical school day (t=2.95, df=54; p=0.005). Children from one parent families spent an average time of between one and 30 minutes while children from two parent families spent a mean of 31 to 60 minutes reading material not connected with school work on a typical day. Interestingly, the amount of time spent watching television in a typical school week also approached significance (t=1.87, df=54; p=0.067), with the children from female headed families averaging 12 hours a week compared to the 8 hour mean for the two parent family children.

Mothers' perceptions of children's personal-social behaviours. Table 21 presents chi-square values for children's behaviours as rated by their mothers. It indicates significant differences between the two groups for the presence of nervous habits, for example, tics, nailbiting, thumbsucking, hunching shoulders, clearing throat and sniffling. One parent mothers perceived their children as manifesting nervous habits significantly more often than did the two parent mothers (X^2=4.904, df=1; $p < .05$). Furthermore,

Table 21

Chi Squared Data for Mothers' Perceptions of Children's Personal-Social Behaviours

	FA		FP				
Behaviour	F-Yes	F-No	F-Yes	F-No	X^2	df	P
Nervous Habits	12	16	4	24	5.600	1	0.018*
Inability to sit still	10	18	3	25	4.909	1	0.027*
Temper	4	24	4	24	0.000	1	1.000
Distractible	11	17	7	21	1.310	1	0.250
Irritable	2	26	0	28	2.074	1	0.149
Fear/Anxiety	4	24	1	27	1.976	1	0.159
Unhappy/ Depressed	2	26	7	27	0.352	1	0.553
Lack self confidence	8	20	8	20	0.000	1	1.000
Aggressive/ Quarrelling	5	23	2	26	1.469	1	0.225
Negative Attitude	4	24	2	26	0.750	1	0.387
Frequent Lying	3	25	1	27	1.077	1	0.299
Persistent stealing	2	26	0	28	2.074	1	0.149
Destructive	1	27	1	27	2.074	1	0.149
Total	-	-	-	-	9.440	2	0.009**

* $p < .05$
** $p < .01$

significantly more of the one parent mothers indicated that their children were "hyperactive/unable to sit still" than did mothers from the two parent families (X^2=4.904, df=1; $p < .05$). There were no significant differences between the mothers perceptions of their children for any of the other variables, although for each behaviour the trend indicated higher frequencies in the one parent group. The frequencies totalled for the whole scale were significantly different (X^2=9.44, df=2; $p < .01$), suggesting that FA mothers compared to FP mothers see their children as having more personal-social behaviour problems.

CHAPTER V

DISCUSSION

The discussion section will deal with each of the hypotheses in turn. Accordingly, the school achievement data will be considered first, the findings for academic locus of control second and teacher perceptions third. A discussion of the home environment variables investigated by the current study will complete this section.

School Achievement

For school achievement, the prediction that FA subjects would obtain significantly lower scores than FP subjects, was not strongly supported. Indeed, the WRAT yielded a significant difference between FA and FP subjects on the reading subscale only, with FA children performing less well than FP children. There were no differences between the two groups in spelling and arithmetic achievement. The school achievement data was consistent with the WRAT data in that it too provided little support for the first of the present study's achievement hypotheses.

Research considering the nature of father absence and children's cognitive development has spawned equivocal results. However, as Shinn (1978) comments in her recent review of the literature, the majority of studies do suggest that the one parent family situation has detrimental effects on children's achievement outcomes. Certainly, studies that control for reasons of absence (e.g., Ferri, 1976; Santrock, 1972) support the notion that children whose fathers are absent for reasons of divorce, desertion and separation achieve less well than FP subjects. Santrock (1972) found this to be so with

third graders performance on the Standardized Achievement Test (SAT) and Ferri (1976) obtained similar results for 11-year old reading and arithmetic attainment.

The data presented in the current study, which suggests that FA children score below FP children in reading, but not spelling and arithmetic, appears somewhat inconsistent with Ferri and Santrock's findings. A number of reasons might be suggested to explain this difference. Firstly, a look at the dependent measures used by the different studies indicates that Santrock reports a total score rather than subject scores. Thus the reader cannot know if the FA children scored consistently below the FP children across the verbal and mathematical components of the SAT, or whether a significantly lower performance in one area was responsible for the total result.

The current study supports Ferri's findings for reading but not arithmetic attainment. Moreover, although FA subjects in the present study scored significantly below FP subjects in standardized reading achievement, it must be kept in mind that all groups were achieving at or beyond their grade level and, therefore, are not at this stage handicapped in terms of national norms. In light of the fact that Ferri's subjects were, on the average, three years older than those in the present study, an idea that must be considered is that the detrimental effects of father absence are not fully apparent by the third grade, but do become more obvious in subsequent years. Such an hypothesis has not been tested by the FA literature to date. However, data from a number of sources does suggest that the differences in FA and FP children's achievement may increase in higher grades. For example, Ferri found that FP subjects compared to FA

subjects, showed significantly greater progress in reading and arithmetic attainment between seven and 11 years.

Further support for the notion that FA children's achievement detriments increase with age, comes from literature which investigates affective variables and their relationship to school achievement. For example, Chapman (1979) compared children who were normally achieving and children who were receiving remedial instruction in reading, on the Student's Perception of Ability Scale (SPAS). He found that the remedial group reported lower self-perceptions of ability not only on the reading/spelling subscale, but also on the arithmetic, penmanship/neatness, confidence, school satisfaction and general ability subscales. That is, lower reading achievement was related not only to a lower self perception of ability for reading but a more generalized lower academic self concept.

The implications of a relatively negative self concept for success in school learning have been well documented (e.g., Bloom, 1976; Chapman, 1979; Cooper, 1979). With little faith in their abilities, students are likely to approach classroom tasks with reluctance, dislike or even avoidance. Lacking the motivation and persistence necessary for school success they embark on a path of academic failure.

A further reason may account for the lack of consistency in outcome between the current study and prior research findings. In the present study FA and FP subjects did not differ in intelligence as measured by WISC-R verbal, performance and total test scores. Neither Ferri (1976) nor Santrock (1972), both of whom found significant differences in achievement between FA and FP children, controlled for

IQ. Blanchard and Biller (1971) report findings that indicate when IQ is controlled, differences in achievement between third grade FA and FP subjects are significant only for those children who experienced father absence before five years. Later father absence did not result in significantly lower achievement. The FA group employed in the present study was approximately equally divided between early and late father absence, a fact which may have accounted for the lack of significant differences between the one and two parent family groups.

In short, data from the present study suggest that while FA children perform significantly less well than FP children in third grade reading, there are no significant differences between the two groups in spelling and arithmetic attainment. These findings are not entirely consistent with those of past research which tend to provide stronger evidence of the detrimental effects of father absence for reasons of divorce, desertion or separation on children's cognitive development. Two major reasons were forwarded in explanation of this difference. Firstly, the current study investigated the achievement of third grade children and an exploration of the differences in achievement progress and affect suggest that attainment differences may widen in later grades. Secondly, this study unlike the other studies, controlled for IQ. Blanchard and Biller's work lends support to the notion that this may account for the differences in outcome between the present study and past research.

The prediction that FA males would obtain significantly lower achievement scores than FA females received strong support from the current study. FA males scored significantly below FA females in

spelling and arithmetic. Their lower reading scores did not reach significance. These results indicate firstly, that the cognitive development of boys is more affected by father absence than is that of girls, and secondly, that third grade FA girls' spelling and arithmetic achievement does not in fact differ from that of FP subjects.

Although the FA literature disagrees about the different effects on achievement, for males and females, of the loss of the father, a considerable body of evidence supports the notion that the effects are more detrimental for boys, and that they may in fact be negligible for girls. For example Santrock (1972) reports for a number of third grade achievement measures that FA boys scored significantly lower than FP boys, while Webb (1970) found achievement differences between one and two parent children to be significant for boys only.

The stronger effects of father absence on boys' cognitive development is usually explained within a learning theory framework which postulates boys' identification with their fathers. Researchers disagree about the basis for identification; some assert the necessity of external reward (e.g., Gerwitz & Stengle, 1968); others argue that modelling can take place without external reward while still other child development theorists (e.g., Kagan, 1958; Mussen & Rutherford, 1963; Sears, 1953) postulate that children imitate models who are nurturant and rewarding, a process which is particularly evident with a model who resembles themselves. However, as Radin (1976) states:

> There may be disagreement about the basis for

> identification among theorists and researchers, but there is little about the fact that young boys identify with, imitate and/or model their fathers ... as boys identify with their fathers, they emulate not only attitudes, values, roles, gestures and emotional reactions but problem-solving strategies, thinking processes and vocabulary as well. This matching of a child's to adults intellective behaviour should foster the cognitive development of young boys. (p. 242)

Parental influences on cognitive development are poorly understood. The means by which cognitive identification is mediated are currently little more than speculation, although there is some evidence, albeit correlational, that the father may exercise a significantly strong influence over his son's intellectual development -- stronger than over his daughter's cognitive growth -- and that mothers and fathers provide different influences in this respect.

Lamb (1976a) argues that although there is a wide-spread agreement that mothers and fathers play different roles in the socialization of their adolescent children, research suggests that differential parental roles exist from infancy. Lamb (1976b) in a detailed observational study, noted that mothers' interaction with their infants tended to largely centre around caretaking activities or involve conventional and toy-mediated types of play, whereas fathers initiated more physical, idiosyncratic and creative types of play. A recent study by Clarke-Stewart (1978) supports Lamb's findings. Biller (1974) reported that mothers were more

likely to inhibit a child's exploration than were fathers, who encouraged their infants curiosity and attempts to solve cognitive and motoric challenges. He suggests that fathers were the more effective in fostering their child's sense of mastery over the environment.

Other studies suggest not only that differential parental roles exist from early in infancy, but also that the father is a more important factor in his son's than his daughter's cognitive development. For example, Pedersen, Rubenstein and Yarrow (1973), reported in Radin (1976), found that for five to six month old black boys, but not girls, the amount of interaction between father and child was positively correlated with scores on the Bayley Tests of Infant Development. Radin (1972) supports these results, with a study which reported that paternal nurturance was positively and significantly related to boys' but not girls' cognitive development. Similarly, paternal restrictiveness was negatively associated with achievement in boys but not girls. In a second study (Radin, 1975) factor analyses were performed on fathers' behaviours with their sons and daughters. For the boys four factors emerged, two nurturant and positively associated with cognitive competence, and two restrictive and negatively associated with cognitive competence. For the girls, however, six factors emerged, only one of which correlated significantly with achievement. Radin also notes that while father-son interaction yielded clear factors, three of the six father-daughter factors were ambivalent and comprised contradictory behaviours. A further study by Radin (1974) suggests that four-year old girls use their mothers as their primary model.

To conclude, it appears that father absence has a more detrimental effect on the academic achievement of boys than girls and that girls in fact may be minimally affected by paternal absence. The findings of the present study are largely supported by those of past research. Although parental influences on cognitive development are poorly understood, most researchers consider the differential sex effect of father absence in light of identification, and recent research suggests that mothers and fathers interact differently with their children and that interaction of the father is related to his son's but not his daughter's cognitive development.

The third achievement hypothesis predicted that children who experienced father absence before five years, but not those who experienced father absence after five years, would obtain significantly lower achievement scores than FP children. This hypothesis was not supported by the results of the current study which revealed no significant differences in achievement between any of the three groups. However, the results for reading did approach the probability level set for significance, and in light of the small sample involved, do suggest possible differences in reading achievement for time of absence. All in all, the data from the present study indicate that time of paternal absence has a negligible effect on children's spelling and arithmetic achievement, but that it may be of importance for attainment in reading.

Although the outcomes of past research are equivocal the more methodologically sound studies do suggest that time of paternal absence is important in influencing achievement outcomes. Blanchard and Biller (1971) found significant differences for the SAT and GPA

between FA before five years and FP groups, the former performing less well than the latter. There was no statistically significant difference between the FA after five years and FP groups. Santrock (1972) found significant differences in the achievement, compared to FP subjects, girls but not boys who experienced father absence before five years. There were no attainment detriments for boys or girls separated from their fathers after five years of age. However, there were significant differences in achievement between FP children and FA boys and girls who experienced paternal separation in the initial two years of their lives.

As Shinn (1978) comments, no definitive conclusions about the relationship between onset of father absence and school achievement can be drawn at this stage. Methodologically sound studies are rare, and not entirely consistent in their outcomes.

Santrock's and Blanchard and Biller's results together suggest that the child's age at the time of paternal separation is probably important in influencing subsequent achievement outcomes. However, when five years is used as the cut off point for early and late absence significant detriments are found sometimes but not other times. The present study and those of Santrock and Blanchard and Biller used small numbers of third grade subjects. Maybe the variable outcomes are attributable to small sample sizes. Perhaps the detrimental effects of early absence are not yet evident at this stage of the child's schooling and become more clear in subsequent grades. Alternatively, Santrock's data suggests that perhaps two years rather than five years is the more meaningful division point.

Santrock's study raises the possibility that length of absence rather than age of separation may be the important factor. Certainly it seems that the earlier the onset and the longer the duration of conditions typically experienced by the female-headed family -- financial hardship, frequent residential changes, lack of societal support, loneliness, tension, less time for child care activities and the like -- the less likely the child is to have the necessary school readiness behaviours and the more likely he or she is to suffer academically.

An alternative explanation of the Santrock data is that of a critical period in child development. Certainly there is support for such a notion within the child development literature. For example, White and Watts (1973) comment in their extensive and detailed longitudinal study of the major influences in the development of the young child:

> Out study ... has convinced us of the special importance of the 10- to 18-month age range for the development of general competence. At this time of life, for most children, several extremely important developments coalesce and force a test of each family's capacity to rear children. The primary burden in most cases falls upon the mother. (p. 234)

Certainly, if 10 to 18 months is a critical period in a child's development, then it would be more meaningful to explore time of absence effects in terms of occurence before and after two years of age.

All in all the present study did not support the hypothesis that children separated from their father before five years achieve less well than FP children. No significant differences in achievement were found for the time of absence variable. Past research of a methodologically sound nature suggests that time of absence is important in moderating achievement outcomes. Studies to have investigated absence before and after five years sometimes report significance and other times do not. However, Santrock found strong detrimental effects in achievement for absence prior to two years of age. Such a finding may be interpreted in light of a length of absence or critical period hypothesis.

To sum up, data from the present study suggest that FA children compared to FP children achieve significantly less well in reading, but not arithmetic and spelling in the third grade. Other studies generally offer stronger support for FA attainment deficits. The particular results of the present study, which examined third grade children, might be partly due to the possibility that FA-FP achievement differences increase as children progress to higher grades, and partly due to the fact that this study, unlike most previous studies, controlled for IQ. The current study supported prior research which has found that FA males achieve significantly less well than FA females, and that paternal absence may in fact have a minimal effect on girls' academic development. These findings were discussed in terms of identification theory and recent research data which suggests that differential parental roles exist from early in infancy, and that paternal interaction is related to son's but not daughter's academic attainment. Finally, the current study offers

little support for the notion that absence before five years is more detrimental to achievement than later absence. However, past research suggests that time of absence may be important in influencing achievement outcomes. Length of absence and critical period considerations suggest that it may be more meaningful to divide FA subjects into those separated before and after two years rather than five years.

Academic Locus of Control

As predicted, FA children obtained significantly lower scores than FP children on the I+ scale of the IAR; that is, compared to children from two parent families, those from one parent families were more likely to perceive sucessful achievement outcomes as being related to external sources of control such as luck, the teacher's whim or the easy nature of the task. Concomitantly, FA children were less likely than FP children to ascribe success to internal factors such as ability and effort. In addition, as predicted, control orientations for failure outcomes yielded no significant differences for family composition; that is, FA and FP children ascribed similar levels of responsibility for failure outcomes to external and internal sources. Considered together, these results indicate that while FA children tend to attribute success to external factors, such as the teacher's good mood or the unusually easy nature of the task, they hold themselves responsible for their failures, attributing them to internal factors such as lack of ability.

In light of the achievement levels typical of the FA and FP children in this study and in light of past research in this area, results are particularly interesting. Many previous studies

(e.g., Chance, 1965; Crandall et.al., 1965; Kifer, 1975; McGhee & Crandall, 1968) have reported positive, significant correlations between successful achievement and high internal attribution scores. The correlational data reported in the present study reveals such a relationship for school grades but not standardized achievement. However, this distinction is not at variance with the results of other studies that have employed the two achievement measures. For instance, McGhee and Crandall (1968) report a stronger and more consistent relationship between attribution of responsibility and school grades than between attributions of responsibility and standardized achievement measures. They offer in explanation the suggestion that school grades are usually dependent not only on academic performance but also on the teacher's estimation of a student's motivation, initiative, willingness to participate, persistence and the like -- characteristics that are much less likely to be forthcoming from students who attribute success largely to external as opposed to internal factors.

Few previous studies have distinguished between control orientations for failure and success outcomes. However, those that have (e.g., Chapman, 1979; Chapman and Boersma, 1979) report significant differences between poorly and normally achieving children, in grades 3 to 6, for the I+ (success outcomes) but not the I- (failure outcomes) subscales of the IAR. The authors suggest that the lack of differences in control orientation for failure outcomes indicates that poorly achieving children have come to believe they lack the necessary abilities for successful academic attainment.

The present study obtained significant differences between FA and FP subjects' control orientations for successful but not failure achievement outcomes. Yet the differences in achievement between the FA and FP groups were not great. Certainly, assuming they are representative of the two groups achievement histories, they do not appear to warrant such distinct differences in control orientation, including a possible internalization on the part of FA subjects, of low academic abilities.

A possible explanation is provided by Chapman (1979). He compared two groups of subjects, one of which was achieving below grade level in reading, the second being a normally achieving group, and found that the former compared to the latter group reported lower self perceptions of ability not only in reading, but across each school subject and for general ability levels. This characteristic was well established by grade 3 and supports Bloom (1976) and Hamachek (1978) when they comment that relatively depressed levels of academic self confidence appear in the first few years of elementary school, frequently in response to repeated failure experiences in the heavily stressed area of reading. Although the grade levels attained in reading by the FA children hardly seem to attest to failure experiences in terms of national norms, it is evident that a comparison with FP classmates would make the FA children aware of their lower achievement levels, and as Festinger (1954) argues, estimates of self worth are largley formed on the basis of comparisons with the peer reference group.

A second explanation for the lack of congruency in FA subjects' achievement and affect lies in an examination of typical FA and FP

environments and experiences. Little research has directly assessed the control orientations of FA and FP samples. However, Hetherington (1972) reports significant differences between FA and FP adolescent girls on the personal control dimension of the Internal-External Control Scale, the FA subjects being the more externally controlled. Research by Horowitz (1978) provides support for Hetherington's findings.

Differences in control orientation between FA and FP children hardly seems surprising when one considers conditions typical of the female-headed family -- residential instability, poverty, crowded living quarters, unpredictable environments in which adults, let alone children, experience little sense of control over their world. Such a situation is bound to intensify feelings of personal helplessness and magnify the importance of chance and whim in one's life (e.g., Nowicki & Walker, 1973).

It is particuarly interesting to note the sex differences in control orientation revealed by the current study. The majority of the family composition effect in attributions for success outcomes may be attributed to the extermely low internal orientation of the FA girls. Consequently, the sex by family composition effect almost reaches statistical significance. In fact, FA and FP boys portray little difference in their internal attributions for successful achievement outcomes. On the other hand, FA girls are less internally oriented in this respect than any of the other three groups, especially the FP girls.

In light of the fact that these same FA girls achieve consistently above the FA boys and at similar levels to the FP girls results are

surprising. However, they are not at variance with past research which has found the relationship between achievement and locus of control to be much less strong and consistent for girls than for boys (e.g., Moursand, 1976). Ames (1978) provided an explanation for this tendency with her finding that for males and females with equivalent performance outcomes, females were more self effacing and attributed significantly less of their success to personal internal factors such as ability and effort than did males. A study by Nowicki and Walker (1973) suggests that internal locus of control and successful school achievement are related for girls with low but not girls with high social desirability scores.

It is possible that self effacing tendencies and social desirability needs are important variables in the difference between the FA boys' and girls' and FA and FP girls' control orientations. Perhaps FA girls are more sensitive than their male counterparts to society's condemnation of their family structure; perhaps they are more aware of other people's perceptions of them and their position -perceptions that may or may not be accurate and yet will most probably come to be believed and lived by the child involved. Certainly, the lack of a father would hardly be regarded by others as a plus on their part and might easily contribute to self-effacing tendencies unrepresentative of FA children's abilities.

The implications of the academic locus of control data in light of the achievement of the FA children is important to consider. The FA and FP subjects have similar IQs. By the third grade they do not differ greatly in achievement levels as a group, although the FA

boys do consistently attain academic standards significantly below those of the FP subjects. However, the FA children are significantly more externally controlled for successful outcomes than the FP children although the two groups manifest similar levels of internal attribution for failure experiences. The value of considering success and failure outcomes separately can be seen here. It appears that FA children, while attributing success to external factors such as chance and whim, take responsibility for their failures, attributing them to their own inadequacies, whether they be lack of ability or lack of control over a largely unpredictable world. It seems likely, therefore, that these children may start to "give up", that they entertain strong doubts about their abilities to perform successfully and therefore will show little persistence or motivation, two characteristics essential for academic achievement (e.g., Cooper, 1979).

Certainly research has shown that children with external as opposed to internal control orientations tend to give up earlier on difficult tasks (Dweck & Reppuci, 1973) and manifest lower levels of intrinsic motivation (Lintner & DuCette, 1974). In combination, these findings suggest that the small achievement detriments evidenced by the FA children in the third grade will become greater in later grades, thus widening the gap between FA and FP children's attainment.

Teacher Perceptions

The prediction that FA subjects would obtain significantly lower subscale and total scale scores on the PRS than FP subjects was confirmed. Of the five subscales, motor coordination was the only

one not to differentiate between the two gruops. These results suggest that teachers perceive FA children, compared to FP children, as exhibiting fewer achievement-related behaviours, particularly in the areas of auditory comprehension, spoken language, orientation and personal-social behaviour.

Teacher perceptions have been little explored by past FA research. Those studies that have touched on the area have dealt with personal-social classroom behaviours only, and because of the lack of control of relevant variables results have been equivaocal, some studies finding that FA children were perceived by teachers as being less personally-socially adjusted than FP children (e.g., Burchinal, 1964; Cortes & Fleming, 1968; Herzog, 1974) and other studies revealing no differences between the teachers' perceptions of the two groups (e.g., Atkinson & Ogston, 1974; Kelly & Zingle, 1965). The present study contributes to the current state of knowledge by extending teacher ratings beyond the personal-social dimension to other areas important for successful school achievement, and in employing a sample in which relevant variables were carefully controlled.

The prediction that FA boys would be rated significantly lower than FA girls, by teachers on the PRS, was not generally supported for either subscale or total scale scores. Spoken language was the only subscale for which teachers rated FA boys significantly lower than FA girls. While there is no previous literature with which to compare these results, they are interesting in light of other data reported by the current study. In combination, the results of the first two teacher perception hypotheses suggest that FA children are

expected to exhibit fewer adaptable achievement-related behaviours than FP children, and that teachers do not perceive FA boys and girls to differ in this respect.

The correlational data reported by the present study indicate a highly significant relationship between classroom and standardized achievement scores and teacher perceptions of student's behaviours. Such a finding is congruent with other research in the area (e.g., Luce & Hoge, 1978). However, while there may be a strong positive relationship between subjects' relative achievement and teacher perception ranks, the present study found little difference in the achievement of the FA and FP groups as a whole, but significant differences in teacher ratings of children from one and two parent families. A look at the sex differences revealed that while FA females performed similarly to FP subjects, FA males consistently achieved well below the three other groups. Consequently, teacher ratings of achievement-related behaviours are not entirely congruent with the actual achievement of these subjects. On the basis of the achievement data one might expect teachers to perceive FA boys, but not FA boys and girls both, as exhibiting less desirable achievement-related classroom behaviours than FP subjects. Moreover, the significant effects are very much stronger for the PRS data than for the achievement data.

In light of the expectancy literature, how might one explain these findings? On the one hand research does suggest that teachers are accurate judges of their student's behaviours (e.g., Luce & Hoge, 1978). If this is in fact so, an integration of the achievement and teacher perception data reported in the present study suggests that

although there is little difference in the achievement levels of FA and FP children in the third grade, FA children exhibit fewer desirable achievement-related classroom behaviours than FP children. This suggests that FA attainment decrements will compound over successive grades, creating greater differences in FA and FP achievement levels.

Research suggesting that teachers are accurate judges of their students' classroom behaviours is correlational in nature. That is, students who achieve highly tend to be rated more highly by teachers. The current study's correlational data suggests this is also true of these teachers and their students. However, a similarity in ranking does not preclude the possibility that teachers might exaggerate the spread of actual differences between the two groups. In light of the social expectations that surround the phenomenon of father absence, the possibility of inaccurate teacher perceptions must be considered for the present data. Unfortunately the researcher does not know the extent to which teachers were aware of their students' family composition, but an informal questioning of the teachers known to the author suggests that they usually know of parental absences. Thus it seems fair to assume that in the majority of cases, teachers were aware of whether or not the subject had a father present at home.

Many writers (e.g., Burgess, 1970; Hetherington, Cox & Cox, 1976; Ferri, 1976; Kopf, 1970) have highlighted the myths and expectations held by society at large about the FA family. They suggest that perhaps the most difficult problem facing the single parent and her children arises from the attitudes and behaviours

of a society which tends to lump the FA family into a single category and apply labels such as "disorganized", "unstable", "undesirable", and "broken" -- a society which tends to assume that it is unlikely a child will grow up healthy in a single parent family. Teachers play a major role in the transmission of social values and characteristically represent the more conservative aspects of society. It is unlikely that they are free from the social stereotypes embodied in the idea of father absence. Consequently, the possibility that their expectations have in fact magnified their perceptions of the difference in FA and FP children's desirable classroom behaviours cannot be ruled out.

Speculation aside, there is no way of knowing for the present study whether the teacher ratings reflect accurately FA and FP children's achievement-related classroom behaviours, or whether they have been influenced by social values. Whatever the case, the consequences for the children are similar. Teachers expect FA children to exhibit fewer achievement-related classroom behaviours than FP children. Cooper (1979) questions whether inaccurate teacher expectations can substantially alter student performance but argues that relatively accurate expectations serve to sustain pre-existing achievement variations among students. Furthermore, he argues that expectations play a role in the translation of student differences in potential contrasts to differences in achievement between students. Cooper (1979) comments:

> It should be noted that the acceptance of a sustaining, as opposed to altering, performance role for expectations hardly diminishes the

> significance of the phenomenon. Even the maintenance of below-average performance through teacher-expectation effects ought to be the focus of societal concern. (p. 393)

Other researchers (e.g., Brophy & Good, 1974; Solomon & Kendall, 1977) perceive inaccurate teacher expectancies as capable of altering student performance. In terms of the current study this means that teachers, influenced by social stereotypes, unfairly expect fewer achievement-related classroom behaviours from FA than FP children. The FA student is likely to perceive these judgments and become convinced of their validity. Subsequent attainment levels and behaviour patterns will be affected accordingly and the teacher's expectations confirmed.

Either a sustaining or an altering interpretation of the data has important implications for these children. Although the FA and FP children employed in the current study do not differ in intelligence, and show few differences in third grade achievement levels, teacher perceptions of their classroom behaviours indicate that lower achievement levels will certainly be sustained and probably heightened in subsequent grades. Consequently it is unlikely that the FA children's intellectual potential will be realized so long as they are bound by the reciprocity of the low expectation-low achievement circle.

Teacher expectations have their effect on student achievement through their translation into different classroom behaviours. Cooper (1979) summarizes the literature and concludes that teacher expectations affect each aspect of Rosenthal's (1974) four-factor typology-climate, input, output, and feedback.

Teachers appear to create a warmer socioemotional atmosphere for brighter students. They have been observed to be most supportive and friendly towards bright students (Kester & Letchworth, 1972) and to smile and nod more at the brighter children (e.g., Chaikin, Sigler & Derlega, 1974). Verbal input is affected by teacher expectations. Students labelled slow are given fewer opportunities to learn new material than those labelled bright (e.g., Beez, 1970) and also have less difficult material taught to them (e.g., Cornbleth, Davis & Button, 1974). In regard to the verbal output factor it has been found that teachers offer clues, repetition and rephrases of a question more frequently when highs answer a question incorrectly than when lows answer incorrectly (e.g., Brophy & Good, 1970). Moreover they allow bright students longer to respond before redirecting unanswered questions to other class members (Rowe, 1974). Feedback behaviours vary in relation to teacher perceptions too. Cooper (1979) comments that research consistently shows that teachers tend to praise high expectation students more and proportionately more per correct response. On the other hand, low expectation students are criticized more and proportionately more per incorrect response. All in all, therefore, it appears that the relationship between teacher expectations and student achievement is certainly mediated by different teacher behaviours for high and low expectation students.

The academic locus of control results may also bear a relationship to the teacher expectation data. The correlational findings indicate no relationship between the IAR and standardized achievement, but a positive and significant relationship between academic locus of control and classroom achievement. FA children were significantly less

internally controlled than FP children, and this was particularly noticeable for girls although their achievement levels differed little from those of the FP subjects. In light of the teacher perception data, it is possible that the FA girls' high external orientation may be partly attributable to their awareness of teachers' lower expectations for them. Already they may have come to interpret these lower expectations as a lack of ability on their part and, therefore, puzzled by their success, see it as being due to chance occurences. The consequences of such an affect for increasing achievement decrements, have been discussed above.

The predictions that children who experienced father absence before five years of age but not those who experienced father absence after five years, would obtain significantly lower subscale and total scale scores on the PRS than FP children, was confirmed. Motor co-ordination was the only subscale for which there was no significant difference between the groups. No prior literature has assessed the relationship between time of absence and teacher ratings of children's classroom behaviours. Thus the present findings will be discussed in terms of the other data reported in this study. For the first two teacher perception predictions it seemd valid, on the basis of teacher reports, to suggest that most teachers were aware of the household composition of their students. However, by the same token, few teachers appear to know when their students experienced father absence. Thus, for the third hypothesis it cannot be assumed that ratings on the dependent variables were influenced by expectations attendent upon a knowledge of independent variable groupings.

Consequently, it appears that a sustaining rather than an

altering interpretation of teacher expectations is the more valid for this data. That is, as teachers were unaware of when their students experienced father absence, it seems that their ratings may reflect real differences in the classroom behaviours of the subjects. However, as was discussed above, even a sustaining interpretation of the data is matter for concern as teachers' perceptions, reflected in their classroom behaviours, serve to maintain and heighten achievement differences in high and low expectation students. Consequently, despite no significant differences for time of absence in third grade subjects' attainment, the implications of the teacher ratings are that the differences in achievement between early separated, late separated and FP children will widen in subsequent grades.

To sum up, teachers expect FA children to portray significantly fewer achievement-related classroom behaviours than FP children. They do not perceive FA boys and girls differently in this respect. In light of the fact that there are few significant achievement differences between FA and FP children, one might interpret the teacher ratings in one of two ways. They may be relatively accurate which suggests that FA children exhibit fewer of those behaviours important for school success than FP children. In such an event, it appears on the one hand that FA-FP achievement differences would be more obvious in subsequent grades, because of the FA children's less adaptive behaviours and because of the sustaining or heightening nature of the teacher expectations.

The second interpretation hypothesizes that teacher expectations are not or were not accurate, having been influenced by social stereotypes of the one parent family. Consequently, teacher expectations

are perceived as having an altering effect on student achievement as students feel and come to live out the expectations. Whatever the case, the implication for FA children's future achievement is that of greater achievement deficits in subsequent grades. Moreover, teachers expect early separated children to exhibit fewer adaptive classroom behaviours than late separated children. Although it is difficult to see how social values might be a factor in these findings, a sustaining interpretation of the expectations suggests, again, that the differences in early separated, late separated and FP children's achievement will be maintained or most likely heightened in later grades.

The Home Environment

The prediction that FA mothers, compared to FP mothers would report significantly more concern about financial, personal and child care needs, was supported. Differences between the two groups of mothers over the total scale were highly significant. The items that differentiated significantly between the women were those pertaining to current and future financial concerns and loneliness.

These results are consistent with those of past research. Higher levels of stress and conflict are consistently reported for FA than for FP mothers (e.g., Ferri, 1976; Ferri & Robinson, 1976; Lamb, 1976a). Such a finding would appear obvious in light of the fact that one parent is now responsible for tasks which often tax the energies of two people. The single mother is responsible for the financial support, child care and household maintenance of her family and frequently experiences stress and conflict in attempting to distribute her limited time between her different responsibilities. Father absent mothers' greater concern with financial matters is congruent

with their actual income levels, which are well below those of two parent families.

Furthermore, the present study found that FA mothers are significantly more lonely than FP mothers. This result confirms Hetherington, Cox and Cox's (1976) descriptive analysis of one and two parent mothers' diary records. They found that single mother subjects reported social isolation and lack of fit in a "world of twos," unacceptance by other adults, especially women who often perceived them as a threat, and the desire for intimate sexual, emotional and supportive relationships.

FA mothers live much of their lives without fulfillment of their needs. If the needs of the mother are not fulfilled they may dominate to the point where the needs of her children are not met either. The importance of the mother in mediating the effects of father absence is being stressed by recent research. As Mackler (1969) comments in relation to father absence and cognitive development:

> Having a father in the home does not insure success nor does his absence insure failure. What is common to most successful children is an adult, usually mother, whose interest in the child and his education ... is keenly sensed by the child. Mother may be working, most often she is, but she is there asking about school daily, or at least once a week." (p. 459)

Certainly, child rearing studies (e.g., Baumrind, 1971; Becker, 1974; White et. al., 1973, 1978) leave little doubt that parenting styles are inextricably linked with children's personality

characteristics and their school achievement, although research is far from specifying the particular behavioural mediation of these parental attitudes, aspirations and child rearing behaviours (Brofenbrenner, 1974).

The area of maternal perceptions has hardly been touched upon within the context of father absence. One exception is maternal perceptions of children's scholastic aspirations. Ferri (1976) and Kriesburg (1970) both found that while FA and FP mothers themselves hold similar aspirations for their children in terms of school grades, FA mothers perceive their children as holding lower educational aspirations for current school attainment than do FP mothers their children. The present study confirmed these two findings. Furthermore, it investigated parental perceptions of children's abilities, and found that the two groups of parents perceived their children as being essentially similar in their abilities to learn, to complete university and to do arithmetic, printing/writing, spelling and language tasks. However, two parent mothers rated their children as significantly higher in reading ability than did the one parent mothers.

When these results are considered together with the other findings reported in the present study, some interesting trends emerge. Firstly, the finding that FA mothers compared to FP mothers, perceive their children as holding lower academic aspirations is consistent with the finding that teachers expect FA children, compared to FP children, to exhibit fewer desirable achievement-related classroom behaviours. It appears, therefore, that both parents and teachers perceive children from one-parent families as less motivated, less

persistent and less careful in their school work than the children from two parent families. The academic locus of control data is, moreover, congruent with this picture. The significantly higher external orientation on part of the FA subjects for success experiences, suggests that they are more likely to perceive successful achievement outcomes as the result, not of ability and effort, but rather of chance and whim. As success is not seen as being under their control they are less likely to persist, try hard with or be careful in school assignments. However, as there are few achievement differences between the FA and FP groups at this stage, it appears that the parents', teachers' and childrens' attitudes have so far had a minimal effect on current attainment levels. This does not deny the possibility though that these effects will become more noticeable in FA and FP children's achievement at subsequent grades.

No causal statements can be drawn from the network of the children's, parents' and teachers' affects and subject's achievement levels. One possibility is that teachers and parents are accurate judges of FA and FP children's relative behaviours and abilities -- that their expectations arise in response to real differences, although once formed they serve to maintain those differences. A second possibility is that teachers hold lower expectations for children from one parent families because they are not free from the influence of social myth, and that mothers' perceptions reflect their greater anxiety and subsequent readiness to perceive problems. This explanation suggests that children's affect and achievement has been altered by that of parents' and teachers' expectations. Certainly the direction of influence is most probably reciprocal by this stage and one

can only speculate about the beginning point.

Father absent and FP mothers perceived their children as essentially of similar ability in all subjects but reading. This is entirely consistent with the achievement results in which the two groups scored similarly except for reading, where FA children performed less well than FP children. Other data collected for the subjects is congruent with these findings. Children from one parent families spent significantly less time reading on a typical day than did children from two parent families. Moreover, the former watched much more television than the latter.

Again, while these results are remarkable in their consistency, one cannot attribute causality to one factor or another. Perhaps mothers perceive their children's achievement accurately. Maybe different parental expectations have contributed to differing reading achievement levels. Perhaps the FA children read less and watch more television because they have difficulty reading and do not enjoy it. Maybe their lower reading levels are a result of less time spent pursuing the subject. One might also speculate further as to what the greater amount of television watched by the FA children means in terms of family dynamics. Certainly television is a convenient way to occupy and amuse children for busy and tired parents. It is also a form of entertainment that might be indulged in the more because of a lack of other things to do. Perhaps there are less toys in the home, fewer books to read (which might also account for little time spent reading at home), less opportunity to go on outings, use community recreational facilities and the like.

The final area of maternal perceptions to be explored by the

current study was that of FA and FP children's personal-social adjustment behaviours. It was found that FA mothers compared to FP mothers expect their children to exhibit more personal-social behaviour problems. The items that distinguished most clearly between the two groups were "nervous habits" and "inability to sit still, hyperactivity". These results are consistent with those of Ferri (1976).

Once again the maternal perception data is consistent with teachers' ratings and together they suggest that FA children, compared to FP children, are perceived as being less well adjusted in personal-social terms, by their mothers and their teachers. The above comments regarding the accuracy of these perceptions and causality directions apply here also. Perhaps parents' and teachers' perceptions are accurate and serve to sustain the differences in FA and FP children's adjustment levels or maybe they have been influenced by anxiety and social sterotypes and have played and will play a role in altering the children's personal-social behaviours. To repeat, the implications are profound for either explanation in that they suggest that the FA children's lower levels of personal-social adjustment will be at best maintained, and at worst heightened in years to come.

In pulling together the home environment data collected by the current study, the following picture emerges. Father absent children compared to FP children experience a family context characterized by greater maternal stress and tension, especially in regard to matters of finance and loneliness. The consequence of higher levels of stress on the mother's part are unclear. However, unfulfilled maternal needs may dominate to the point of denying children their need fulfillment. Single mothers perceive their children as holding

lower school achievement aspirations than do two parent mothers their children. Such a finding is congruent with the fact that teachers investigated by the current study expect the children from one parent families to exhibit fewer achievement-related classroom behaviours than the two parent children. The picture is further developed by the affect data which indicated that FA children, compared to FP children, were more likely to attribute success to the external factors of chance and whim, rather than the internal factors of ability and effort.

Single mothers and two parent mothers see their children as essentially similar in academic abilities except reading, in which the FA children are perceived as being less able. Such a finding is in line with the achievement data which revealed a significant FA attainment detriment in reading only. Moreover, single mothers compared to two parent mothers expect their children to be less personally-socially adjusted, a finding which echoes the teacher perception data.

It can only be speculated as to whether maternal expectations have a sustaining or an altering effect on children's affect and achievement. Despite the nature of their influence, the implications are of similar import -- either a maintaining or a widening of the differences between FA and FP children.

CHAPTER VI

CONCLUSIONS AND IMPLICATIONS

The present study conceived of father absence as a continuous, multidimensional and contextual variable. It assumed a model of school achievement which argued that school success is related to a child's cognitive and affective characteristics, which are in turn influenced by the home and school environments. The study specifically aimed to explore the achievement-related contexts of children from one and two parent family situations in an attempt to better understand some of the different dynamics operating within the two family contexts. What picture does the current study reveal?

For groups of children similar in IQ, the present research indicates that FA children do not differ significantly from FP children in third grade standardized achievement levels, except for reading in which they perform less well. However, while FA girls tend to show attainment levels similar to those of the FP children, FA boys consistently perform less well than their FA female and FP peers. There were no significant differences in achievement between FA children who experienced paternal separation before age five, those who separated from their fathers after five years of age and FP subjects, although the results for reading approached significance.

While FA-FP achievement differences are minimal, there are significant differences in the two groups' internal-external attributions for success outcomes, although not for failure outcomes. These results suggest that while children from one parent families are more likely than those from two parent families to attribute

success to external factors such as chance and whim, as opposed to internal factors such as ability and effort, they tend to hold themselves responsible for failure outcomes indicating a possible internalization of lack of ability or lack of control over one's personal world. Typically, children with their affective characteristics are unlikely to exhibit those behaviours essential for success in school.

> Where a student is convinced of his inadequacy, he finds no great energy to accomplish the next task, has little patience or perserverance when he encounters difficulties, and takes little care and thoroughness in accomplishing the task.
> (Bloom, 1977, pp. 194-195)

The implications of these findings are important. Although there is little apparent difference between FA and FP children's achievement in the third grade, the very different affective characteristics of the subjects suggest that attainment differences between the two groups may widen over successive grades.

The environmental characteristics of the school and the home contribute to a child's affect and subsequent achievement. What are the FA children experiencing at school? The current study indicates that teachers expect FA children to exhibit fewer achievement-related classroom behaviours than FP children. FA boys and girls are perceived similarly in this respect and subjects separated from their fathers before five years but not those separated later are seen to portray fewer achievement-related classroom behaviours than FP children. The FA child's school environment embodies low teacher

expectations. Such a result is congruent with the locus of control data and can only imply that FA children's achievement detriments will be sustained or more probably heightened in years to come.

To complete the picture, the home environment must be considered. The present study revealed that the FA home compared to the FP home is characterized by significantly higher levels of maternal stress about finance, child care and personal happiness matters -- a situation in which the single mothers' children are less likely to have their needs fulfilled than are the two parent children. Moreover, women in single parent families, compared to women in two parent families, perceive their children as holding lower aspirations for school success and as being less well adjusted in a personal-social sense, findings which are in line with the teacher expectations.

One can only speculate as to the directions of influence that are operating between the variables examined in the present study. However, by the time of data collection they are most probably reciprocal. The picture that emerges for the FA children is not optimistic. Although there are few differences between FA and FP children's third grade achievement, the particular affective, school and home environment characteristics experienced by the FA children suggest they are locked in a cycle which can only mean the maintenance or more probably the heightening of their achievement detriments, in spite of their potential ability.

Social attitudes and a lack of economic and emotional support have been isolated by many researchers (e.g., Burgess, 1970; Ferri, 1976; Ferri & Robinson, 1976; Hetherington, Cox & Cox, 1976) as the root of those conditions which give rise to the different cognitive

and affective characteristics of one and two parent children.

> By its isolation of the one parent family and by its attitude toward it as being deleterious to the well-being of children, society carries within itself the conditions that are causing many of the adverse effects felt by single parents and their children. (Burgess, 1970, p. 46)

The one parent family needs society's support even more than the two parent family, because of the increased responsibilities and pressures that accrue with the loss of the second parent. What measures might be taken to alleviate some of these detrimental societal effects on single parent families?

Firstly, at a very practical level the present study has frequently mentioned the financial problems of the one parent family. Other studies (e.g., Ferri and Robinson, 1976) have described the consequences of reduced income -- lower nutritional standards, less toys and books in the home, fewer opportunities for recreational outings, the need for the mother to work which allows less time to spend interacting with her children, residential instability and the like -- consequences that have very real effects on the affective and cognitive development of both mother and child. A very practical solution to this situation would simply be to make more money available to these women.

The consequences of minimal state benefits usually mean that the single mother must go out to work. Characteristically, employed single parents face conflict regarding their fulfillment of child care requirements on the one hand, and difficulties obtaining and

holding a job on the other hand. Mothers coping alone report that they often cannot afford a babysitter or do not have friends to whom they can send their children after school. Consequently, the children are on their own a lot. Family circumstances affect the job opportunities available to single mothers. Employers are frequently reluctant to hire women separated from their husbands because their family obligations make them less reliable employees. In choosing a job, many single parents feel themselves obliged to sacrifice pay and job satisfaction in favour of conditions that fit with their family ties. In the working situation, not all employers are sympathetic to the women's problems and do not look kindly on requests for time off or timetable changes. Ferri and Robinson (1976) found that going out to work had resulted in a life of continual fatigue and anxiety for many single mothers, which characteristically led to ill-health and frequent job changes.

Attitude change is never an easy process to implement. However, it seems essential that legislation concerning the discrimination of single mothers in the job market be enacted and that employers be encouraged to hire and facilitate the working life of lone parents. Large businesses might offer daycare, recreational and study facilities for use by the children of single parents both after school and through the day.

A further social reform that seems essential to the equalization of opportunity for FA and FP families is the provision of daycare facilities. Both quantity and quality of daycare are frequently limited. It is usual to be on a waiting list for 12 to 24 months before enrollment and fees are sometimes high. Furthermore the

supervision of school aged children might be organized by the community or the school making available recreational and study facilities for after-school use.

Perhaps the most serious problem faced by the single parent family is that of society's attitudes towards their situation. Societal attitudes are reflected in many ways and are particularly difficult both to assess accurately and to change. They are seen in the lack of support given to the one parent family both by social institutions and the public at large. Most western societies provide some means of institutionalized support for lone parents in the form of organizations such as Uncles at Large, Big Sisters and the Single Parent Association. However, the extent to which support can be offered in this way is limited. Perhaps more important is the difficulty single parents have making friends, finding a person with whom they might comfortably share their hopes and fears:

> I'm not physically alone, I'm mentally alone.
> Although you've done no wrong some people
> outcast you. (Comments from two single
> mothers reported in Ferri & Robinson, 1976, p. 70)

While official sources seem to offer little of the less tangible moral support and comfort that these women need, the general public with its feelings of censure and distrust, aggravates rather than alleviates the single parent family's situation. The social notion of father absence must be reformed. It is time a public education programme was implemented, stressing the fact that it is not absence of the father per se, but rather the social and economic problems attendent upon his absence that lie behind the cognitive and affective

characteristics of FP children. Only when the one parent family can interact comfortably within the context of social support will the consequences of father absence be attenuated.

Suggestion For Future Research

Generalizations to white FA and FP populations at large, based on findings from the present study must be made with care. The sample numbers available for the research reported were somewhat small, especially for the comparisons by sex and time of absence. Consequently, one atypical score could have influenced the study's outcomes. It is important to remember also, that due to the design of the present study it is descriptive in nature and inferences regarding the directions of causality between the variable outcomes described, cannot be made. In this sense, the study must not be interpreted beyond the limitations of its design.

However, despite the limitations of the present study it is unique in a number of ways within the FA literature. Firstly it takes a contextual approach to the FA child's cognitive development and focuses on a number of variables that directly impinge upon and influence school success. In this way, the emphasis is on present rather than absent interactions in the child's world and the study yields a detailed and complex picture of several different components of that world. Secondly, the study is somewhat unique in its continuous and multidimensional definition of the father-absence, father-presence phenomenon. The result of adopting such an approach was rigid control of many variables not normally considered in one-parent family research. For example, the FA and FP samples were similar in intelligence; they were similar in the quantity of contact

between subjects and their mothers and other significant adults. The samples were similar in sibling distribution and family size. FA and FP mothers did not differ on a host of educational, age, working status and medical history characteristics. Thus, although the study had small sample numbers, this limitation was offset to some extent by the careful control of variables. A third important characteristic of the present study is its investigation of a number of variables previously untouched by the FA literature, notably academic locus of control, teacher expectations and maternal perceptions of children's ability.

An important consideration for any future research in the area has to be the conceptualization of father absence. This study has pointed out the inadequacies of prior definitions and has elaborated a framework involving continuous, multidimensional and contextual components. The advantages of such a definition have been explained and demonstrated in the course of the present study, and it is suggested that future research in the area adopt and refine this conceptualization of father absence.

One empirical study frequently ends up posing many more questions than it has answered. Such is certainly the case with the present study. A recurring question in the current research is whether or not FA and FP children's achievement differences widen in subsequent grades. Another way to pose this question might be, do FA children's achievement detriments increase in later grades? This would certainly be a worthwhile question for future research to consider from either a cross-sectional or longitudinal perspective. A longitudinal study which adopted a contextual approach to FA children's school achievement

would be valuable in helping to identify important predictive/causal variables. A longitudinal approach would also yield data concerning the importance of time of absence effects on FA childrens school achievement. Does separation from the father have more detrimental effects at one age than another age? Does separation after a particular age pose no negative effects for attainment? Do the time of absence effects on achievement become more evident as the children grow older?

A further area of questions to have arisen out of the present study is that of the influence of social stereotypes on teachers' expectations for FA children. Are teachers generally aware of their student's family composition? What notions do teachers bring to the classroom about father absence? Does a knowledge of whether or not a child is from a one parent family influence the teachers' expectations of that child? The first two questions might be explored via a descriptive interview or questionnaire approach. The third could be examined by collecting teacher expectation data on a group of students of similar achievement levels, randomly assigning them FA or FP status, informing teachers of subjects' status and later comparing teachers' subsequent performance expectancies with those reported initially.

Research into why FA children might perform less well than FP children has barely progressed past theorizing from a psychoanalytical or modelling perspective. A few researchers have speculated as to the influence of the social context on subsequent mother-child interactions, but actual experimental investigations are rare. A fruitful approach to the question of causality might be a cross-lagged panel analysis utilizing different achievement, affective,

teacher and maternal interaction variables.

A further interesting approach would be to adopt the processes of certain developmental psychologists (e.g., Caldwell, 1975; 1976; Carew, Chan & Halfir, 1976; White et. al., 1973; 1978) and undertake a detailed environmental analysis of one and two parent family homes. Such an approach would yield valuable data on the practical structuring of the hom- environment and the quantity and quality of specific mother-child interactions. An observational approach in the FA literature is almost unknown, mothers reports being the typical means of data collection.

References

Ames, C. Children's achievement attributions and self-reinforcement. Effects of self concept and competitve reward structure. Journal of Educational Psychology, 1978, 70, 345-355.

Atkinson, B. R., & Ogston, D. C. The effect of father absence on male children in home and school. Journal of School Psychology, 1974, 12, 213-221.

Ausubel, D. P., Novak, J. D., & Hanesian, H. Educational Psychology: A cognitive view. New York: Holt, Rinehart & Winston, 1978.

Baumrind, D. Current patterns of parental authority. Developmental Psychology Monographs, 1971, I, 1-103.

Becker, W. C. Consequences of different kinds of parental discipline. In M. L. Hoffman and L. W. Hoffman (Eds.), Review of Child Development Research (Vol. I). New York: Russell Sage Foundation, 1964.

Beez, W. V. Influence of biased psychological reports on teacher behavior and pupil performance. Proceedings of the 76th Annual Convention of the American Psychological Association, 1968, 3, 605-606.

Biller, H. B. Father-absence and the personality development of the male child. Developmental Psychology, 1970, 2, 181-301.

Blanchard, R. W., & Biller, H. B. Father availability and academic performance among third grade boys. Developmental Psychology, 1971, 301-305.

Bloom, B. S. Human characteristics and school learning. New York: McGraw-Hill, 1976.

Bloom, B. S. Affective outcomes of school learning. Phi Delta Kappan, 1977, Nov., 193-198.

Braun, C. Teacher expectations: Sociopsychological dynamics. Review of Educational Research, 1976, 46, 185-213.

Brofenbrenner, U. Developmental research on public policy and the ecology of childhood. Child Development, 1974, 45, 1-5.

Brophy, J. E., & Good, T. L. Teachers' communication of differential expectations for children's classroom performance: Some behavioural data. Journal of Educational Psychology, 1970, 61, 365-374.

Brophy, J. E., & Good, T. L. Teacher-student relationships: Causes and consequences. New York: Holt, Rinehart & Winston, 1974.

Burchinal, L. G. Characteristics of adolescents from unbroken, broken and reconstituted families. Journal of Marriage and the Family, 1964, 26, 44-52.

Burgess, J. K. The single parent family: A social and sociological problem. Family Co-ordinator, 1970, 19, 137-144.

Bradley, R., & Caldwell, B. Early home environment and changes in mental test performance in children from 6 to 36 months. Developmental Psychology, 1976, 12, 93-97. (a)

Campbell, D. T., & Stanley, J. C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally & Co., 1963.

Carew, J. V., Chan, I., & Halfar, C. Observing intelligence in young children. New Jersey: Prentice Hall, Inc., 1976,

Cazden, C. B. Problems for education: Language as curriculum content and learning environment. Daedalus, 1973, 102(3), 135-148.

Chance, J. E. Internal control of reinforcements and the school learning process. Paper presented at Society for Research in Child Development Convention, Minneapolis, 1965.

Chapman, J. W. Affective characteristics in learning disabled and

normally achieving elementary school children: A comparative study. Unpublished doctoral dissertation, University of Alberta, 1979.

Chapman, J. W., & Boersma, F. J. Learning disabilities, locus of control, and mother attitudes. Journal of Educational Psychology, 1979, 71, 250-258.

Chapman, M. Father absence, stepfathers and cognitive performance of college students. Child Development, 1977, 48, 1155-1158.

Chaikin, A., Sigler, E., & Derlega, V. Nonverbal mediators of teacher expectancy effects. Journal of Personality and Social Psychology, 1974, 30(1), 144-149.

Clarke-Stewart, K. A. And Daddy makes three: The fathers impact on mother and young child. Child Development, 1978, 49, 466-478.

Coleman, J. S., et. al. Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office, 1966.

Collins, M. A. Achievement, intelligence, personality and scool-related variables in Negro children from intact and broken families attending parochial schools in Harlem (Doctoral dissertation, Fordham University, 1969). Dissertation Abstracts International, 1969, 30, 5280A-5281A. (University Microfilms No. 70-11,459)

Cooper, H. M. Pygmalion grows up: A model for teacher expectation communication and performance influence. Review of Educational Research, 1979, 49, 389-410.

Cornbleth, C., Davis, O., & Button, C. Expectations for pupil achievement and teacher-pupil interaction. Social Education, 1974, 38(1), 54-58.

Cortes, C. F., & Fleming, E. S. The effects of father absence on the adjustment of culturally disadvantaged boys. Journal of Special

Education, 1968, 2, 413-420.

Crandall, V. C. Refinement of the IARO scale. NIMH Progress Report, December, 1968. Grant No. MH-02238, 60-67.

Crandall, V. C., Katkovsky, W., & Crandall, V. J. Children's beliefs in their own control of reinforcement in intellectual-academic situations. Child Development, 1965, 36, 91-109.

Douglas, J. W. B. Broken families and child behaviour. Journal of Royal College of Physicians, 1970, 4(3), 203-210.

Dweck, C. S., & Reppucci, N. D. Learned helplessness and reinforcement responsibility in children. Journal of Personality and Social Psychology, 1973, 25, 109-116.

Elardo, R., Bradley, R., & Caldwell, B. The relation of infants home environments to mental test performance from six to thirty-six months: A longitudinal analysis. Child Development, 1975, 46, 71-76.

Elashoff, J., Snow, R. E. Pygmalion reconsidered: A case study of statistical inference: Reconsideration of the Rosenthal-Jacobson data on teacher expectancy. Belmont, Calif.: Wadsworth, 1971.

Entwistle, D. R., & Hayduk, L. A. Too great expectations: The academic outlook of young children. Baltimore: John Hopkins University Press, 1978.

Ferri, E. Growing up in a one parent family. Slough: NFER Publishing Co., 1976.

Ferri, E., & Robinson, H. Coping alone. Slough, NFER Publishing Co., 1976.

Festinger, L. A theory of social comparison processes. Human Relations, 1954, 2, 117-140.

Garner, J., & Bing, M. The elusiveness of Pygmalion and differences in teacher-pupil contacts. Interchange, 1973, 4, 34-42.

Gerwitz, J. L., & Stengle, K. G. Learning of generalized imitation as the basis for identification. Psychological Review, 1968, 75, 374-397.

Glasser, P. H., Navarre, E. L. The problems of families in the AFDC program. Children, 1965, 12, 151-156.

Hainline, L., & Feig, E. The correlates of childhood father absence in college-aged women. Child Development, 1978, 49, 37-42.

Hamachek, D. E. Encounters with the self. 2nd ed. New York: Holt, Rinehart & Winston, 1978.

Hammill, D. D., & Bartel, N. R. Teaching children with learning and behavior problems. Boston: Allyn & Bacon, Inc., 1975.

Herzog, E., & Sudia, C. E. Children in fatherless families. In B. H. Caldwell & H. N. Ricciuti (Eds.), Review of Child Development Research (Vol. 3). Chicago: University of Chicago Press, 1973.

Herzog, J. D. Father absence and boys school performance in Barbados. Human Organization, 1974, 33(1), 71-75.

Hetherington, E. M. Effects of paternal absence on sex-typed behavior in negro and white pre-adolescent males. Journal of Personality and Social Psychology, 1966, 4(1), 87-91.

Hetherington, E. M. Effects of father absence on personality development in adolescent daughters. Developmental Psychology, 1972, 7, 313-326.

Hetherington, E. M., Cox, M., & Cox, R. Divorced fathers. The Family Co-ordinator, 1976, 25, 417-427.

Horowitz, J. Father loss: Effects on the adolescent girl's sex-role

identity, self esteem and locus of control. Unpublished manuscript, Rutgers University, 1976.

Jastak, J. F., & Jastak, S. The Wide Range Achievement Test: A manual of instructions. Delaware: Jastak Associates, Inc., 1978.

Kagan, J. The concept of identification. Psychological Review, 1958, 65, 295-305.

Kelly, J. M. Self concept development in parent deprived children: A comparative study. Graduate Research in Education and Related Disciplines, 1970, 6, 30-48.

Kelly, F. J., North, J., & Zingle, H. The relation of broken homes to subsequent school behaviors. Alberta Journal of Educational Research, 1965, 4, 215-219.

Kester, S., & Letchworth, G. Communication of teacher expectations and their effects on achievement and attitudes of secondary school students. Journal of Educational Research, 1972, 66, 51-55.

Kifer, E. Relationships between academic achievement and personality characteristics: A quasi-longitudinal study. American Educational Research Journal, 1975, 12, 191-210.

Kopf, K. E. Family variables and school adjustment of 8th grade boys. The Family Coordinator, 1970, 19, 145-150.

Kriesberg, L. Mothers in poverty. Chicago: Aldine, 1970.

Lamb, M. E. The role of the father: An overview. In M. E. Lamb (Ed.), The role of the father in child development. New York: Wiley, 1976, (a)

Lamb, M. E. Interactions between two-year-olds and their mothers and fathers. Psychological Reports, 1976, 38, 447-450. (b)

Lefcourt, H. M. Locus of control: Current trends in theory and

research. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1976.

Lintner, A. C., & DuCette, J. The effects of locus of control, academic failure and task dimensions on a student's responsiveness to praise. American Educational Research Journal, 1974, 11, 231-239.

Luce, S. R., & Hoge, R. D. Relations among teacher rankings, pupil-teacher interactions and academic achievement: A test of the teacher expectancy hypothesis. American Educational Research Journal, 1978, 15, 489-500.

Lynn, D. B., & Sawrey, W. L. The effects of father absence on Norwegian boys and girls. Journal of Abnormal and Social Psychology, 1959, 59, 258-262.

Mackler, B. The little black schoolhouse: Success and failure in a ghetto school. Final report. Department of Urban Affairs, Hunter College of the City University of New York, 1969.

Maguire, T. O., & Haig, B. D. Problems of control in nonexperimental educational research. The Alberta Journal of Educational Research, 1976, 22, 289-296.

Marino, C. D., & McGowan, R. J. The effects of parent absence on children. Chid Study Journal, 1976, 6(3), 165-184.

McGhee, P. E., & Crandall, V. C. Beliefs in internal-external control of reinforcement and academic performance. Child Development, 1968, 39, 91-102.

McKay, A., George, V., & Wilding, P. Stereotypes of male and female roles and their influence on people's attitudes to one-parent families. Sociological Review, 1972, 20(1), 79-92.

Meehl, P. E. Nuisance variables and the ex poste facto design. Minnesota Studies in the Philosophy of Science, 1970, 4, 373-402.

Mendels, G. E., & Flanders, J. P. Teachers expectations and pupil performance. American Educational Research Journal, 1973, 10, 203-212.

Messer, S. B. The relation of internal-external control to academic performance. Child Development, 1972, 43, 1456-1462.

Miner, B. Sociological background variables affecting school achievement. Journal of Educational Research, 1968, 61, 372-381.

Mirels, H. L. Dimensions of internal versus external control. Journal of Consulting and Clinical Psychology, 1970, 84, 226-228.

Moursand, J. P. Learning and the learner. Monterey, Calif.: Brooks/Cole, 1976.

Mussen, P. H., & Rutherford, E. Parent-child relation and parental personality in relation to young children's sex role preferences. Child Development, 1963, 34, 589-607.

Myklebust, H. R. The Pupil Rating Scale: Screening for learning disabilities. New York: Grune & Stratton, Inc., 1971.

Nowicki, S., & Barnes, J. Effects of a structured camp experience on locus of control orientation. Journal of Genetic Psychology, 1973, 122, 247-252.

Nowicki, S., & Walker, C. Achievement in relation to locus of control: Identification of a new source of variance. Journal of Genetic Psychology, 1973, 123, 63-67.

Pidgeon, D. Teacher expectation and pupil performance. In T. Roberts (Ed.), The Circumstance of Learning. Manchester: University of Manchester Studies in Education, 1976.

Pribram, K. H. Education: An enterprise in language learning. In M. C. Reynolds (Ed.), Proceedings of the conference on psychology and

the process of schooling in the next decade. Minneapolis: University of Minnesota, Audio-Visual Extension, 1971.

Radin, N. Father-child interaction and the intellectual functioning of four-year old boys. Developmental Psychology, 1972, 6, 353-361.

Radin, N. Observed paternal behaviors as antecedents of intellectual functioning in young boys. Developmental Psychology, 1973, 8, 369-376.

Radin, N. Observed maternal behavior with four-year-old boys and girls in lower-class families. Child Development, 1974, 45, 1126-1131.

Radin, N. The role of the father in cognitive, academic and intellectual development. In M. E. Lamb (Ed.), The role of the father in child development. New York: Wiley, 1976.

Robinson, J. P., & Shaver, P. R. Measures of social psychological attitudes, Rev. ed. Ann Arbor, Michigan: Institute for Social Research, 1973.

Rosenthal, R. On the social psychology of the self-fulfilling prophecy: Further evidence for Pygmalion effects and their mediating mechanisms. New York: MSS Modular Publications, 1974.

Rosenthal, R., & Jacobson, L. Pygmalion in the classroom: Teacher expectation and pupils' intellectual development. New York: Holt, Rinehart & Winston, 1968.

Rowe, M. Wait time and rewards as instructional variables, their influence on language, logic and fate control. Journal of Research in Science, 1974, 11(4), 291-308.

Rowntree, G. Early childhood in broken homes. Population studies, 1955, 8, 247.

Santrock, J. W. The relation of type and onset of father absence to cognitive development. Child Development, 1972, 43, 455-469.

Sears, P. S. Childrearing factors related to the playing of sex-typed roles. American Psychologist, 1953, 8, 431.

Segal, J., & Yahraes, H. A Child's Journey. New York: McGraw-Hill Book Co., 1978.

Shinn, M. Father absence and children's cognitive development. Psychological Bulletin, 1978, 85, 295-324.

Solomon, D., Hirsch, J. G., Scheinfeld, D. R., & Jackson, J. C. Family characteristics and elementary school achievement in an urban ghetto. Journal of Consulting and Clinical Psychology, 1972, 39, 462-466.

Solomon, D., & Kendall, A. J. Dimensions of children's classroom behavior, as perceived by teachers. American Educational Research Journal, 1977, 14, 411-421.

Stolz, L. M. et. al. Father relations of war-born children. Stanford, California: Stanford University Press, 1954.

Sutton-Smith, B., Rosenberg, B. G., & Landy, F. Father-absence effects in families of different sibling compositions. Child Development, 1968, 39, 1213-1220.

Tiller, P. O. Father absence and personality development of children in sailor families: A preliminary research report. In N. Anderson (Ed.), Studies of the Family. Gottingen: Vandenhoeck & Ruprecht, 1958.

Wasserman, H. L. Father-absent and father-present lower class Negro families: A comparative study of family functioning (Doctoral dissertation, Brandeis University, 1968). Dissertation Abstracts International, 1969, 29, 4569A-4570A. (University Microfilms No. 69-8919).

Webb, J. B. A comparative study of the relation of broken homes to the

school success of high school students (Doctoral dissertation, George Washington University, 1970). Dissertation Abstracts International, 1970, 31, 3187A-3188A. (University Microfilms No. 70-27,250).

White, B. L., Watts, J. C., et. al. Experience and environment: Major influences on the development of the young child. Vol. I. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1973.

White, B. L., et. al. Experience and environment: Major influences on the development of the young child. Vol. 2. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1978.

MOTHER INTERVIEW SCHEDULE

ID: _____ 1-6

I. Child's Name: _____ Age: _____

Mother's Name: _____ Phone: _____

Address: _____ Post Code: ____

School: _____ Grade: _____

Teacher: _____ RR/NRR: _____

Housing: 1 ___ single
2 ___ duplex
3 ___ multiple

II. HISTORY OF CHILD

1. Date of Birth: _____ 9

2. Relationship of child to mother:

1 _ own 3 _ foster

2 _ adopted 4 _ other (_____) 10
spec.

3. If not natural mother, how many years has this child been under your care?

1 _ 0-1 yr	6 _ 5-6 yrs	10 _ 9-10 yrs
2 _ 1-2 yrs	7 _ 6-7 yrs	11 _ 10-11 yrs
3 _ 2-3 yrs	8 _ 7-8 yrs	12 _ 11-12 yrs
4 _ 3-4 yrs	9 _ 8-9 yrs	13 _ 12 + yrs
5 _ 4-5 yrs		

11-12

4. If natural mother, was the delivery 1 __ easy
2 __ average
3 __ difficult 14

If natural mother, was the birth premature? 1 __ yes
2 __ no 15

If natural mother, how old were you when he/she was born?

1 _ 15-20 yrs
2 _ 21-25 yrs
3 _ 26-30 yrs
4 _ 31-35 yrs
5 _ 36-40 yrs
6 _ 41-45 yrs
7 _ 46+ yrs

16

5. Has this child had any serious illnesses to date:

1 _ yes (_____) 2 _ no
spec.

17

6. Has this child had any serious accidents to date:

1 _ yes (_____) 2 _ no
spec.

18

7. Has your child had any problems with the following?

a) speech 1 _ yes 2 _ no — 20
b) vision 1 _ yes 2 _ no — 21
c) hearing 1 _ yes 2 _ no — 22
d) co-ordination 1 _ yes 2 _ no — 23
e) other 1 _ yes 2 _ no (_____) — 24
spec.

sum of yes (a-e) ____ — 25

8. Medical history of this child:

a) frequent colds 1 _ yes 2 _ no — 26
b) allergies 1 _ yes 2 _ no — 27
c) stomach 1 _ yes 2 _ no — 28
d) head colds 1 _ yes 2 _ no — 29
e) nightmares 1 _ yes 2 _ no — 30
f) bedwetting 1 _ yes 2 _ no — 31
g) other 1 _ yes 2 _ no (_____) — 32
spec.

sum of yes (a-g) ____ — 33

9. Has your child ever received medication for hyperactivity or behavioral problems?

1 _ yes (_____)
spec.

2 _ no

34

III. BEHAVIORAL DATA ON CHILD (Look for typical patterns)

1. Any nervous habits? (Underline) 1 _ yes 2 _ no

38

Tics, Persistent mannerisms: clearing throat, sniffing, hunching up shoulders, squinting, twitching of any facial muscles, tapping with feet, nailbiting, thumb sucking, other (spec. _____). READ THESE OUT LOUD

2. Hyperactive, inability to sit still	1 _ yes 2 _ no	39
3. Uncontrolled emotions, temper tantrums	1 _ yes 2 _ no	40
4. Marked inability to concentrate, distractible	1 _ yes 2 _ no	41
5. Extremely irritable	1 _ yes 2 _ no	42
6. Unusual fear or anxiety	1 _ yes 2 _ no	43
7. Very unhappy, depressed	1 _ yes 2 _ no	44
8. Lack of self-confidence, pronounced shyness	1 _ yes 2 _ no	45
9. Bullying, over-aggressive, constantly quarrelling	1 _ yes 2 _ no	46
10. Negative attitude	1 _ yes 2 _ no	47
11. Frequent lying	1 _ yes 2 _ no	48
12. Persistent stealing	1 _ yes 2 _ no	49
13. Destructive	1 _ yes 2 _ no	50
	Σ YES	51-52

IV. NUTRITIONAL DATA

1. How many days during the week does your child typically have the following foods:

		7	6	5	4	3	2	1	
+a)	Meat & fish	( )	( )	( )	( )	( )	( )	( )	55
-b)	Cookies & cakes	( )	( )	( )	( )	( )	( )	( )	56
+c)	Milk & cheese	( )	( )	( )	( )	( )	( )	( )	57
+d)	Fresh fruit/juices	( )	( )	( )	( )	( )	( )	( )	58
-e)	Candy	( )	( )	( )	( )	( )	( )	( )	59
-f)	Pop & Kool Aid	( )	( )	( )	( )	( )	( )	( )	60
+g)	Fresh or frozen vegetables	( )	( )	( )	( )	( )	( )	( )	61
-h)	Potato chips, etc.	( )	( )	( )	( )	( )	( )	( )	62
+i)	Eggs	( )	( )	( )	( )	( )	( )	( )	63

N+ (acdgi) ____ 64-65

N- (befh) ____ 66-67

1 _ N+ 2 _ N- 68

2. Does your child usually eat breakfast? 1 _ yes 2_ no 69

3. If yes, what does your child usually eat for breakfast? (list)

_____ _____ _____

_____ _____ _____

_____ _____ 1 _ N+ 2 _ N- 70

4. What does your child usually eat for noon lunch? (list)

_____ _____ _____

_____ _____ _____

_____ _____ 1 _ N+ 2 _ N- 71

5. What does your child usually eat for dinner? (list)

_____ _____ _____

_____ _____ _____

_____ _____ _____

1 _ N+ 2_ N- _____ 72

6. How many snacks does your child have on a typical school day? _____ _____ 73-74

7. What foods usually make up his/her snacks? (list)

_____ _____ _____

_____ _____ _____

_____ _____ _____

1 _ N+ 2 _ N- _____ 75

8. What are your child's favorite foods? (list)

_____ _____ _____

_____ _____ _____

_____ _____ _____

1 _ N+ 2 _ N- _____ 76

9. How often per week do you and your children eat out at places like McDonald's, Dairy Queen, A & W, Kentucky Fried, etc. _____ _____ 77

FOR NUTRITIONIST ONLY

Rate this child's diet in terms of nutrional value:

1 _ very high

2 _ above average

3 _ average

4 _ below average

5 _ very poor _____ 78

V. EDUCATIONAL DATA OF CHILD (Card 2)

1. Did your child attend Kindergarten? 1 _ yes 2 _ no ____ 10

2. Since starting Grade 1 how many different schools has your child attended? _____ ____ 11

3. Has your child ever repeated a grade? 1 _ yes 2 _ no ____ 12

4. How would you rate your child's ability to learn?

   1)__ Excellent

   2)__ Above average

   3)__ Average

   4)__ Below average

   5)__ Poor ____ 13

5. Do you think your child has the ability to complete university?

   1)__ Yes, definitely

   2)__ Yes, probably

   3)__ Probably not

   4)__ No ____ 14

6. How important to you are the grades your child gets in school?

   1)__ Very important

   2)__ Important

   3)__ Not particularly important

   4)__ Grades don't matter to me at all ____ 15

7. Which statement best describes your child?

   1) __ Likes to get better grades than everyone else

   2) __ Likes to get better grades than almost everyone else

   3) __ Likes to get about the same grades as everyone else

   4) __ Doesn't care about grades ____ 16

8. How important to you are good grades compared with other aspects of school?

1)__ Good grades are the most important thing in school

2)__ Good grades are among the important things in school

3)__ Some other things in school are more important

4)__ Good grades don't matter to me at all ____ 17

9. Rank your child's ability in the following subjects:

	much below average$_1$	below average$_2$	average$_3$	good$_4$	excel.$_5$	
Arithmetic	( )	( )	( )	( )	( )	____ 18
Printing/Writing	( )	( )	( )	( )	( )	____ 19
Reading	( )	( )	( )	( )	( )	____ 20
Spelling	( )	( )	( )	( )	( )	____ 21
Language	( )	( )	( )	( )	( )	____ 22

Σ rankings ____ 23-24

10. About how much time does your child spend on reading - not connected with schoolwork - on a typical schoolday?

1)__ No time

2)__ Up to 30 minutes

3)__ Over 30 minutes to 1 hour

4)__ Over 1 hour ____ 25

11. Do you spend time helping your child with his/her reading?

1)__ Yes, regularly

2)__ Yes, when he/she needs help

3)__ No ____ 26

12. Do you place a definite limit on the amount of time your child spends viewing television during the school week?

1)__ Yes, have definite time limits

2)__ No ____ 27

13. Does your child have a reading problem? 1 __ yes 2 ___ no ____ 28

VI. FAMILY DATA

1. How many children are there in the family? _____ ____ 29-30

   Number older brothers ____ ____ 31

   Number younger brother ____ ____ 32

   Number older sisters ____ ____ 33

   Number younger sisters ____ ____ 34

2. Total number of children living in the home _____ ____ 35-36

3. Total number of adults living in the home _____ ____ 37-38

(a) Who are they?	(b) During a typical week how many hours does your child spend with each of these adults?						
	0-10	11-22	21-30	31-40	41-50	50+	
Mother	( )1	( )2	( )3	( )4	( )5	( )6	39
Father	( )	( )	( )	( )	( )	( )	40
_____	( )	( )	( )	( )	( )	( )	41
					Σ contact		42

4. Are you currently married? 1 ___ yes 2 ___ no ____ 46

5. How many times have you been married? _____ ____ 47

6. If married, for how long have you been married to your current husband?

   _____ mos. ____ 48-50

7. Are you currently married to (living with) your child's father?

   1 ___ yes 2 ___ no ____ 51

   (a) If not living with child's father, reason:

   1 ___ never married ____ 52

   2 ___ trial separation (short term) ____ 53

   3 ___ legal separation (long term) ____ 54

   4 ___ divorced ____ 55

   5 ___ deceased ____ 56

   6 ___ other (specify _____) ____ 57

   (b) If not living with your child's father, how old was he/she when the separation took place?

   _____ mos. ____ 58-60

(c) If separated, does your child see his/her father?

1 ___ yes 2 ___ no ___ 61

(d) If separated, and his/her father lives near Edmonton, in a typical week about how many hours would his father spend with him/her?

___ up to 5 ___ 16-20
___ 6-10 ___ 21-25
___ 11-15 ___ 25+ ___ 62

(e) If separated, and his/her father lives outside of the Edmonton area, about how many weeks per year does your child spend with his/her father?

___ 1-2 ___ 7-8
___ 3-4 ___ 9-10
___ 5-6 ___ 10+ ___ 63

FOR THOSE NOT CURRENTLY MARRIED

8. Are you currently living in a "common law" relationship with another man in the home? 1 ___ yes 2 ___ no ___ 64

9. If yes, for how long have you been living with this partner?

_____ mos. ___ 65-67

FOR ALL MOTHERS

9. Apart from those living in the home, who are the adult men with whom your child had most contact, over the past 12 months?

Relationship to child (excluding teacher)	Hours contact per month						
	0-10	11-20	21-30	31-40	41-50	50+	
_____	( )	( )	( )	( )	( )	( )	___ 68
_____	( )	( )	( )	( )	( )	( )	___ 69
_____	( )	( )	( )	( )	( )	( )	___ 70
_____	( )	( )	( )	( )	( )	( )	___ 71
_____	( )	( )	( )	( )	( )	( )	___ 72
					Σ contact	___	___ 73

10. Apart from those living in the home, who are the adult women with whom your child had most contact, over the past 12 months?

Relationship to child (excluding teacher)	Hours contact per month						
	0-10	11-20	21-30	31-40	41-50	50+	
_____	( )	( )	( )	( )	( )	( )	____ 74
_____	( )	( )	( )	( )	( )	( )	____ 75
_____	( )	( )	( )	( )	( )	( )	____ 76
_____	( )	( )	( )	( )	( )	( )	____ 77
_____	( )	( )	( )	( )	( )	( )	____ 78
					Σ contact ____		____ 79

VII. FATHER DATA

(Card 3)

1. Age: 1____ < 20 4____ 31-35 7____ 46-50
2____ 21-25 5____ 36-40 8____ 51-55
3____ 26-30 6____ 41-45 9____ 56+ ____ 10

2. Education:
1____ Less than high school diploma
2____ High school diploma
3____ Technical training (e.g., NAIT, SAIT)
4____ University training
5____ University degree
6____ Graduate training
7____ Graduate degree ____ 11

3. Current occupation (be very specific) _____
_____
_____ ____ 12-15

4. How many full-time jobs has your husband (partner) had in the past five years?
_____ ____ 16

5. During the past year, has your husband (partner) held a part-time job in additon to his full-time position?
1 yes 2 no ____ 17

6. During a typical week, how many days (i.e., 24 hour periods) is your husband (partner) away from home?
_____ ____ 18

7. During a typical year, how many weeks is your husband (Partner) away from home?
_____ ____ 19

VIII. MOTHER DATA

1. Age: 1___ <20 4___31-35 7___46-50
2___21-25 5___36-40 8___51-55
3___26-30 6___41-45 9___56+ ___ 20

2. Education: 1___ Less than high school diploma
2___ High school diploma
3___ Technical training (e.g., NAIT, SAIT)
4___ Univerasity training
5___ Univerasity degree
6___ Graduate training
7___ Graduate degree ___ 21

3. Do you have any current medical problems which restrict your activities, such as a heart condition, a bad back, etc?
1 ___ yes 2 ___ no ___ 22

4. Are you currently a full-time student at any institution?
1 ___ yes 2 ___ no ___ 23

5. Current occupation (be very specific)
_____ 24-27
_____
_____

6. In his/her preschool years did your child ever attend a day care center? 1 ___ yes 2 ___ no ___ 28
If so, for how many months?
_____ mos. 29-30

7. Before your child turned five, were you ever away from him/her for more than four weeks at a time?
1 ___ yes 2 ___ no ___ 31

If yes, at what age(s) did this occur?

			Length	
0-6 mos.	1__ yes	2__ no	_____ mos.	____ 32
7-12 mos.	1__ yes	2__ no	_____	____ 33
13-24 mos.	1__ yes	2__ no	_____	____ 34
25-36 mos.	1__ yes	2__ no	_____	____ 35
37-48 mos.	1__ yes	2__ no	_____	____ 36
49-60 mos.	1__ yes	2__ no	_____	____ 37
			£ _____ mos.	____ 38-40

IX. FAMILY INCOME

1 ___ less than $5,000	5 ___ $21,000 - $25,000
2 ___ $6,000 - $10,000	6 ___ $26,000 - $30,000
3 ___ $11,000 - $15,000	7 ___ $31,000 - $35,000
4 ___ $16,000 - $20,000	8 ___ $36,000+

____ 41

X. CHILD'S ACTIVITIES

1. How many supervised activities, clubs, or lessons does your child attend each week?

1 ___ none	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

____ 42

2. How many times per week does your child play with friends outside of the home?

1 ___ never	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

____ 43

3. How many times per week does your child have friends over to his house to play?

1 ___ never	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

____ 44

4. On a typical school day, about how much time does your child spend watching television after school hours and until he/she does to bed?

1 ___ no time	4 ___ 2-3 hours
2 ___ up to 1 hour	5 ___ 4-5 hours
3 ___ 1-2 hours	6 ___ over 4 hours

45

5. During a typical school week, about how much time would your child spend watching television?

1 ___ doesn't watch T.V.	5 ___ 16-20 hours
2 ___ up to 5 hours	6 ___ 21-25 hours
3 ___ 6-10 hours	7 ___ 26-30 hours
4 ___ 11-15 hours	8 ___ more than 30

46

XI. MOTHER'S ACTIVITIES (Mother only activities!)

1. Outside the home, how many times per month do you attend instructional classes or activities in which there is a leader present, such as self-development, music, craft classes etc? (DO NOT CONSIDER FULL-TIME EDUCATIONAL ATTENDENCE IN THIS QUESTION)

1 ___ never	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

47

2. How many times per month do you go out for social activities, such as movies, dancing, visiting, etc?

1 ___ never	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

48

3. How many times per month do you engage in recreational activities such as swimming, skiing, tennis, etc?

1 ___ never	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

49

4. Inside the home, how many hours per week do you have for your personal interests or hobbies, such as sewing, reading, music, etc?

1 ___ none	4 ___ 5-6
2 ___ 1-2	5 ___ 7-8
3 ___ 3-4	6 ___ 9+

50

5. How many times per month are you engaged in other activities, such as voluntary work, committees, boards, etc?

1 ____	none	4 ____	5-6
2 ____	1-2	5 ____	7-8
3 ____	3-4	6 ____	9+

51

6. During a typical week, about how much time to you spend watching television?

1 ___	don't watch T.V.	5 ___	16-20 hours
2 ___	up to 5 hours	6 ___	21-25 hours
3 ___	6-10 hours	7 ___	26-30 hours
4 ___	11-15 hours	8 ___	more than 30

52

7. I worry about recreational opportunities for my children such as swimming and gym facilities, etc. because of inadequate community resources.

1 ___ yes 2 ___ no

53

8. How many times per week, on the average, do you help your child with school type activities, such as reading, math, printing/writing, etc?

1 ____	don't	4 ____	5-6
2 ____	1-2	5 ____	7-8
3 ____	3-4	6 ____	9+

54

XII. HEATHER'S FW SCALE

	Always	Often	Seldom	Never	
1. I am concerned about having enough money to get me through the month.	[ ]	[ ]	[ ]	[ ]	60
2. I feel lonely.	[ ]	[ ]	[ ]	[ ]	61
3. I worry about my child's present school achievement.	[ ]	[ ]	[ ]	[ ]	62
4. I feel relaxed.	[ ]	[ ]	[ ]	[ ]	63
5. I have problems disciplining my children.	[ ]	[ ]	[ ]	[ ]	64
6. I worry about my ability to cope with my responsibilities.	[ ]	[ ]	[ ]	[ ]	65
7. I enjoy life.	[ ]	[ ]	[ ]	[ ]	66
8. I worry about having enough money in the future.	[ ]	[ ]	[ ]	[ ]	67
9. I feel depressed.	[ ]	[ ]	[ ]	[ ]	68
10. I have difficulty finding someone to look after my children.	[ ]	[ ]	[ ]	[ ]	69

Σ 70-71

APPENDIX B

Table A

Product Moment Correlations for the WRAT and Schol Grades

		WRAT		
		Reading	Spelling	Arithmetic
GRADES	Reading	0.481***	0.504***	0.204
	Language	0.383**	0.419***	0.179
	Spelling	0.419***	0.445***	0.203
	Arithmetic	0.461***	0.470***	0.243*
	Writing	0.419***	0.422***	0.137
	G.P.A.	0.458***	0.479***	0.205

* $p < .05$
** $p < .01$
*** $p < .001$

Table B

Product Moment Correlations between the WISC-R and School Grades, and the WISC-R and the WRAT

	WISC-R		
	Verbal	Performance	Total
School Grades:			
Reading	0.390**	-0.059	0.0267*
Language	0.379**	-0.059	0.0260*
Spelling	0.353**	-0.093	0.218
Arithmetic	0.349**	-0.075	0.310*
Writing	0.404**	-0.022	0.298*
G.P.A.	0.396**	-0.032	0.286*
WRAT			
Reading	0.410**	-0.021	0.300*
Spelling	0.362**	0.050	0.304*
Arithmetic	-0.060	-0.030	-0.058

* $p < .05$
** $p < .01$

Table C

Product Moment Correlations Between the IAR and the WISC-R, School Grades and the WRAT

	IAR	
	I+	I-
WISC-R		
Verbal	0.113	-0.165
Performance	-0.169	-0.047
Total	0.003	-0.163
School Grades		
Reading	0.293*	0.261
Language	0.299*	0.270*
Spelling	0.286*	0.276*
Arithmetic	0.238	0.170
Writing	0.357**	0.374**
G.P.A.	0.298*	0.311**
WRAT		
Reading	0.154	-0.102
Spelling	0.093	-0.129
Arithmetic	0.039	-0.032

* $p < .05$

** $p < .01$

Table D

Product Moment Correlations Between the PRS and the WISC-R

School Grades and the WRAT

	PRS					
	Auditory Comprehension	Language Spoken	Orientation	Motor Coordination	Personal-social behaviour	Total
WISC-R						
Verbal	0.412**	0.335**	0.299*	-0.078	0.326*	0.344**
Performance	0.049	-0.009	0.277	0.147	-0.010	0.059
Total	0.338*	0.251	0.349**	0.024	0.233	0.291*
			0.336**			
School Grades						
Reading	0.500***	0.453***	0.336**	0.201	0.433***	0.470***
Language	0.482***	0.432***	0.399**	0.253	0.431***	0.479***
Spelling	0.483***	0.439***	0.362**	0.162	0.409**	0.454***
Arithmetic	0.605***	0.490***	0.561***	0.218	0.499***	0.576***
Writing	0.487***	0.417***	0.415***	0.277	0.467***	0.498***
G.P.A.	0.542***	0.473***	0.440***	0.235	0.474***	0.525***
WRAT						
Reading	0.727***	0.698***	0.539***	0.303**	0.511***	0.677***
Spelling	0.799***	0.705***	0.619***	0.280*	0.541***	0.717***
Arithmetic	0.349**	0.412**	0.365**	0.358**	0.226	0.386**

* $p < .05$
** $p < .01$
*** $p < .001$

APPENDIX C

Table A

ANOVA Summary Data for School Grades and Grade Point Average: Sex x Family Composition

Source	df	M.S.	F-Ratio	Probability
Reading				
A (Sex)	1	2.477	1.543	0.219
B (FA-FP)	1	3.018	1.880	0.176
AB	1	1.032	0.643	0.426
Errors	52	1.605		
Language				
A	1	2.173	1.369	0.247
B	1	3.500	2.208	0.144
AB	1	1.244	0.784	0.380
Errors	52	1.587		
Spelling				
A	1	1.244	0.804	0.374
B	1	3.500	2.261	0.139
AB	1	1.244	0.804	0.374
Errors	52	1.548		
Arithmetic				
A	1	2.232	1.404	0.241
B	1	13.018	8.185	0.006**
AB	1	1.032	0.649	0.424
Errors	52	1.590		
Writing				
A	1	1.781	1.289	0.261
B	1	4.018	2.907	0.094
AB	1	0.877	0.634	0.429
Errors	52	1.382		
G.P.A.				
A	1	1.596	1.428	0.238
B	1	4.921	3.592	0.063
AB	1	1.081	0.789	0.378
Errors	52	1.370		

**$p < .01$

Table B

Means and Standard Deviations for School Grades and Grade Point Average: Sex x Family Composition

	FA			FP		
	N	Mean	S.D.	N	Mean	S.D.
Reading						
Male	18	2.278	1.142	18	2.944	1.258
Female	10	3.000	0.893	10	3.100	1.041
Language						
Male	18	2.278	0.987	18	3.000	1.162
Female	10	3.000	1.000	10	3.100	1.223
Spelling						
Male	18	2.278	1.125	18	3.000	1.315
Female	10	2.900	0.944	10	3.000	1.144
Arithmetic						
Male	18	2.200	0.840	18	3.167	1.187
Female	10	2.700	1.101	10	3.300	0.962
Writing						
Male	18	2.167	0.856	18	2.889	1.174
Female	10	2.800	0.733	10	3.000	1.188
G.P.A.						
Male	18	2.200	1.086	18	3.000	1.246
Female	10	2.880	0.968	10	3.100	1.000

Table C

ANOVA Summary Data for School Grades and

Grade Point Average: Time of Absence

Source	df	M.S.	F-Ratio	Probability
Reading	2	1.991	1.223	0.301
Errors	53	1.623		
Language	2	2.232	1.392	0.257
Errors	53	1.603		
Spelling	2	2.042	1.313	0.278
Errors	53	1.555		
Arithmetic				
Arithmetic	2	7.676	4.864	0.011*
Errors	53	1.578		
Writing	2	3.348	2.469	0.094
Errors	53	1.356		
G.P.A.	2	3.155	2.294	0.100
Errors	53	1.375		

Scheffe Comparison for Arithmetic Effect

Source	df	F-Ratio	Probability
FA before five years vs FP group	2,53	4.757	0.013*

*$p < .05$

Table D

Means and Standard Deviations for School Grades and Grade Point Average: Time of Absence

	N	Mean	SD
Reading			
FA before 5 years	16	2.375	1.346
FA after 5 years	12	2.750	1.102
FP	28	3.000	1.305
Language			
FA before 5 years	16	2.375	0.976
FA after 5 years	12	2.750	1.299
FP	28	3.036	1.374
Spelling			
FA before 5 years	16	2.375	1.064
FA after 5 years	12	2.667	1.259
FP	28	3.000	1.305
Arithmetic			
FA before 5 years	16	2.000	1.238
FA after 5 years	12	2.583	0.786
FP	28	3.214	1.424
Writing			
FA before 5 years	16	2.125	1.216
FA after 5 years	12	2.750	0.944
FP	28	2.929	1.303
G.P.A.			
FA before 5 years	16	2.250	0.813
FA after 5 years	12	2.700	1.347
FP	28	3.036	1.285